Clefted situations: A note on expletives in Scottish Gaelic clefts*

David Adger

d.j.adger@qmul.ac.uk

August 4, 2010

1 Varying expletives in Clefts

In Scottish Gaelic, unlike in most varieties of Irish, the form of the expletive in a cleft construction varies depending on the category of the element which has been clefted:

(1) 'S   **e** Calum a   thug   an cat do Mhàiri.
     Cop.PRES it Calum REL give.PAST.REL the cat to Mary
     'It's Calum who gave the cat to Mary.'

(2) 'S   **e** an cat a   thug   Calum do Mhàiri.
     Cop.PRES it the cat REL give.PAST.REL Calum to Mary
     'It's the cat that Calum gave to Mary.'

(3) 'S   **ann**   do Mhàiri a   thug   Calum an cat.
     Cop.PRES in.3MS to Mary   REL give.PAST.REL Calum the cat
     'It's to Mary that Calum gave the cat.'

DP arguments appear with the form *e*, while PP arguments appear with the form *ann*.

Extending the paradigm, adjectives, adverbs, adjunct PPs, and aspectual phrases trigger *ann* while clausal complements, both finite and non-finite, trigger *e*:

(4) a. 'S   **ann**   breagha a   tha   i.
         Cop.PRES in.3MS beautiful REL be.PRES she
         'She's beautiful'
     b. 'S   **ann**   [gu slaodach] a   tha   i a'   ruith.
         Cop.PRES in.3MS PRT slow   REL be.PRES she SIMP run.VN
         'She's running slowly'
     c. 'S   **ann**   [a'   pògadh Chaluim] a   bha   Seònag.
         Cop.PRES in.3MS SIMP kiss.VN Calum.GEN that be.PAST Seònag

'What Seònag was doing was kissing Calum.'

    d.   'S   **ann** [air a'   bhòrd] a   dhanns Seònag.
        Cop.PRES in.3MS on the.DAT table.DAT that dance.PAST Seònag
        'It was on the table that Seonag danced.'

(5)   a.   'S   **e** [gu robh   e tinn] a   thuirt   mi.
        Cop.PRES it that be.PAST.DEP he ill   REL say.PAST.REL I
        'What I said was that he was ill.'

    b.   'S   **e** [an leabhar ud a   leughadh] a   dh'iarr   e orm.
        Cop.PRES it the book   that PRT read.VN   REL ask.PAST.REL he on.1S
        'What he asked me to do was to read that book.'

One might take this variation to be dependent on whether the clefted element is a semantic predicate or not, with predicates (that is, elements which have an open position semantically) triggering *ann*. However, nominal predicates appear with *e*:

(6)   'S   **e** cat a   th'   ann an Lilly.
        COP it cat REL be.RES in   Lilly
        'Lilly is a cat.'

In this short paper I want to look at the consequences of taking *ann* to be strictly parallel to *e* in its syntax and semantics: both appear in a predicative position syntactically, and have a predicative function semantically. The difference between the two is not fundamentally structural, but is rather tied to the kind of argument that 'bottoms out' the semantic function that the expletive denotes. While *e* denotes a function that ultimately gives information about an individual, *ann* plays the same role with respect to a situation. Under such an analysis, the morphosyntactic difference between the two elements can be read off their semantic representation.

    I'll make this argument by first outlining a predicative analysis of the expletives, extending the theory presented in Adger and Ramchand (2003) to clefts with *e*, and showing how that theory provides us with a unified understanding of the clefting of DP arguments and nominal predicates: crucially *e* is either a predicate of individuals, or a predicate of predicates of individuals. I then turn to *ann*, developing an analysis of *ann* as a predicate of predicates of situations (in a parallel fashion to the treatment of *e* in predicate nominals). If *e* and *ann* are strictly parallel, we then expect a version of *ann* as a direct predicate of situations, and I show how this expectation is met by an oft noted, but as yet unanalysed, construction in Scottish Gaelic.

2   Predication

2.1 *E*

In Gaelic simple predicational constructions are of two types, which, following Adger and Ramchand (2003), I will call the Substantive Auxiliary Construction (SAC) and the Inverted Copular Construction (ICC). In both, a finite element comes first: the auxiliary *bith* for the SAC, and the copular verb *is/bu* for the ICC. In the SAC, the subject precedes the predicate,

while in the ICC the order is reversed (hence the name). Thus we have:

(7) a. Auxiliary Subject Predicate (SAC)
     b. Copula Predicate Subject (ICC)

ICC's are not productive in the modern spoken language, except in consciously archaic discourse, but the syntax of ICCs is used to build many other constructions in the language, including clefts.

The simplest cases of the SAC involve an adjectival phrase (8) or a prepositional phrase (9) following the subject:

(8) Tha   Calum faiceallach.
     Be.PRES Calum careful

     'Calum is (being) careful.'

(9) Tha   Calum anns a'   bhùth.
     Be.PRES Calum in   the shop

     'Calum is in the shop.'

Equivalent ICCs with an adjective and a PP respectively would look as follows:

(10) Is   mòr an   duine sin.
      Cop.PRES big that man
      'That man is big.'

(11) Is   le   Calum an cù.
      Cop.PRES with Calum the dog
      'The dog belongs to Calum.'

Both (10) and (11) are rather literary, and not commonly heard.
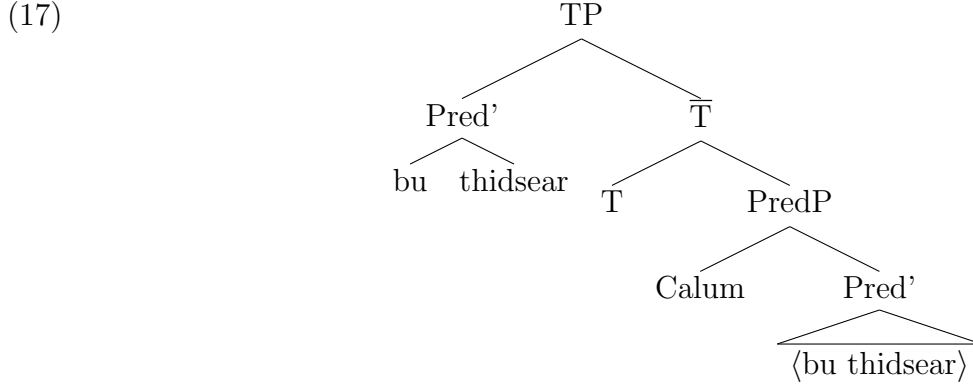
The SAC, however, rejects a nominal predicate:

(12) *Tha   Calum tidsear.
      Be.PRES Calum teacher
      'Calum is a teacher.'

The ICC, to the extent it is productive, allows nominal predicates, however, both (13) and (14) are preferentially expressed using cleft structures:

(13) Bu   thidsear Calum.
      Cop.PAST teacher Calum
      'Calum was a teacher.'

(14) Is   eun sgarbh.
      Cop.PRES bird cormorant
      'The cormorant is a bird.'

(15) 'S   e tidsear a   tha   ann an Calum.
      Cop.PRES it teacher REL be.PRES in   Calum
      'Calum is a teacher.'

3

(16)   'S   e eun a   tha   ann an sgarbh.
           Cop.PRES it bird REL be.PRES in   cormorant
           'The cormorant is a bird.'

Adger and Ramchand propose that the archaic nominal predication structures have the following syntactic analysis:
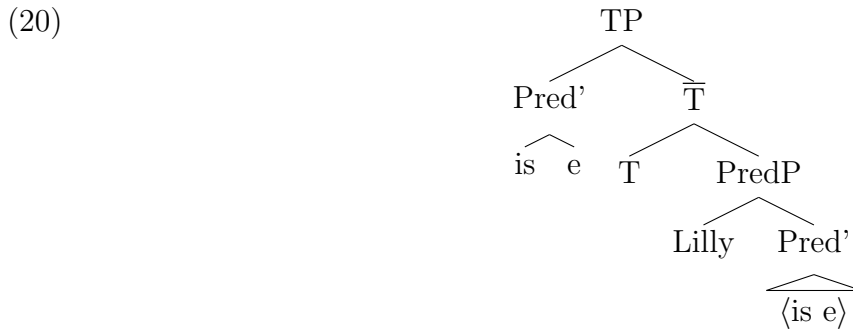
(17)

```
                        TP
                 _____/  _____
              Pred'                T̄
              / \              ___/  \___
            bu  thidsear     T          PredP
                                     __/    \__
                                  Calum      Pred'
                                            /‾‾‾‾‾\
                                         ⟨bu thidsear⟩
```

Semantically, they treat the copula as introducing a **holds** predicate which directly predicates a property of an individual:

(18)   a.   [[Pred']] = $\lambda x.\textbf{holds}(\textbf{teacher}, x)$
         b.   [[Calum]] =**Calum**
         c.   [[PredP]] =**holds**(**teacher**, **Calum**)

The two arguments of **holds** have to be of the right semantic type to combine.

    Adger and Ramchand argue that, in Gaelic, a pronoun can directly denote a property. The syntactic corollary of this is that a pronoun may be the complement of the predicational head Pred[0], so that (19), receives the analysis in (20):

(19)   Is   e Lilly.
           COP it Lilly
           'It's Lilly'

(20)

```
                      TP
                ____/   \____
            Pred'             T̄
            / \           __/  \__
          is   e        T        PredP
                               __/   \__
                            Lilly     Pred'
                                     /‾‾‾\
                                   ⟨is e⟩
```

Semantically, the pronoun is simply treated as a property whose content is to be filled in, either contextually, or by some structure overtly present in the syntax. The "filling in" operation is akin to the resolution of pronominal anaphora. This means that PredP contains

4

a variable over properties:[1]

(21)   a.   [[Pred']] = $\lambda x.\textbf{holds}(P, x)$
        b.   [[Lilly]] =**Lilly**
        c.   [[PredP]] =**holds**$(P, \textbf{Lilly})$

Although it is not made explicit in Adger and Ramchand (2003) (where the primary purpose was to analyse equatives rather than clefts), this leads to an analysis of clefts in the language as follows, where the property denoted by the pronoun is semantically identified by the relative clause:

(22)   Is   e Lilly a   leum.
        COP it Lilly that jump.PAST
        'It's Lilly that jumped'

(23)
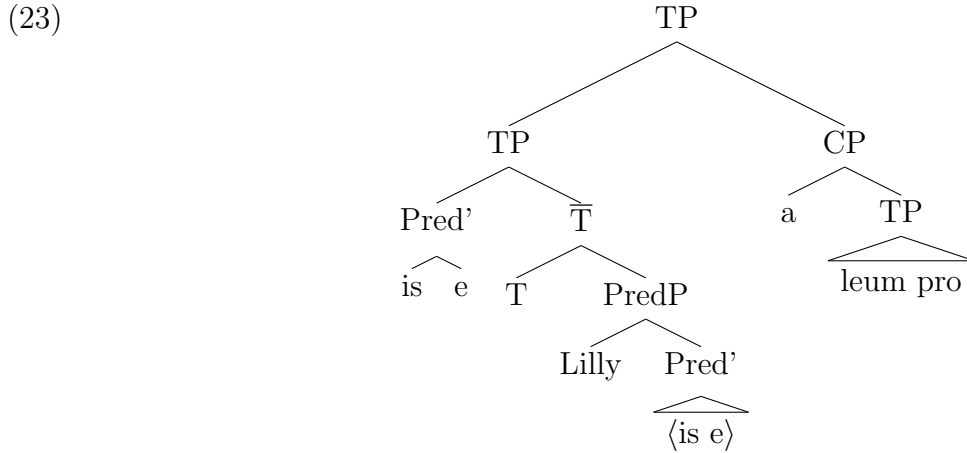
Assuming that the relative clause denotes a predicate of individuals, its semantics is straightforward (I adopt Adger and Ramchand's (2005) analysis of relatives where the relative complementizer binds a null pronominal in Gaelic, although nothing hangs on this)

(24)   [[a leum]] = $\lambda x \exists e.\textbf{jump}(e) \wedge \textbf{agent}(x, e) \wedge \textbf{past}(e)$

The next issue is how to connect the semantics of the pronoun with that of the relative clause. One possibility would be to assume that the relative clause is attached to the pronoun, semantically combines with it, and extraposes to its surface position (cf. Percus 1997). An alternative would be to allow an anaphora resolution operation to identify the content of the variable with the content of the relative clause, taking the latter to be in apposition (the route that Adger and Ramchand took for equatives). In either case, we effectively end up with the following:

(25)   [[Cleft]] =**holds**$(\lambda x \exists e.\textbf{jump}(e) \wedge \textbf{agent}(x, e) \wedge \textbf{past}(e), \textbf{Lilly})$

Turning now to predicate nominals, recall that these too appear with *e*.

---

[1]Paul Elbourne points out that the variable here does not appear to get its interpretation via an assignment function. This is correct. In fact, I take the variable to be replaced by the relevant piece of structure before interpretation.

(26) 'S   e eun a   tha   ann an sgarbh.
     Cop.PRES it bird REL be.PRES in   cormorant
     'The cormorant is a bird.'

In this example, *eun*, 'bird' is of type $\langle e, t \rangle$ and denotes a predicate of individuals (in fact, here a predicate of kind individuals). *Ann an sgarbh*, I take to be of generalized quantifier type: it denotes a set of properties (the set such that the kind cormorant is in it). I use the cap symbol of Chierchia 1984 to denote the nominalization operation that creates properties (which are of an atomic type) from sets:[2]

(27)   [[ann an sgarbh]] $=\lambda Q.[\cap \lambda x.\textbf{cormorant}(x)] \in Q$

The syntax of the copular part of the cleft is then (28), with the pronominal predicate e being of type $\langle \langle e, t \rangle, t \rangle$:

(28)

(29)   [[PredP]] $=\textbf{holds}(P, \lambda x.\textbf{bird}(x))$

The relative clause is a simple predication, with the relativization doing no semantic work (although it is necessary to abstract the predicate variable across tense marking etc.).

(30)   [[RelClause]] $= \lambda Q.[\cap \lambda x.\textbf{cormorant}(x)] \in Q$

Slotting in the meaning of the relative clause for the variable, we correctly derive (31), which says that the set of cormorants is in the set of birds:

(31)   [[PredP]] $=\textbf{holds}(\lambda Q.[\cap \lambda x.\textbf{cormorant}(x)] \in Q, \lambda x.\textbf{bird}(x))$

So it appears that e can be used as a variable of type $\langle \langle e, t \rangle, t \rangle$ or $\langle e,t \rangle$. Syntactically, it appears in the complement of the Pred head, and the Pred head introduces a **holds** relation between the meanings of its complement and its specifier. Although the connection between the two is not directly one of functional application, the semantic types of the two arguments of **holds** have to be appropriate for the connection between the property denoted by the complement and denotation of the specifier.
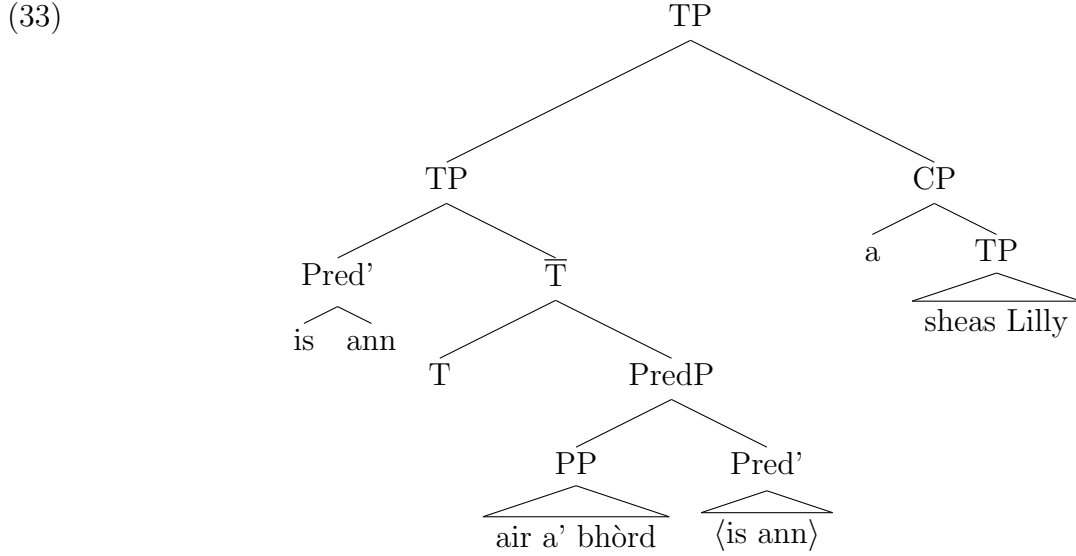
2.2   *Ann*

With this analysis in place, we can now turn to *ann*. Its syntax is the same as that of *e* and we would ideally like to treat it also as a pronominal predicate. Let's see what the

---

[2]Many thanks to Paul Elbourne for pointing out an error in an earlier version of this.

consequences of such a move would be by looking at the analysis of (32):

(32) Is   ann   air a' bhòrd a   sheas   Lilly.
      COP in.3MS on the table REL stand.PAST Lilly
      'It's on the table that Lilly stood'

Syntactically we would take the subject of the predication to be a PP:

(33)

```
                              TP
                    _____
                   /                        \
                  TP                         CP
           _____/_____                   /  \
          /             \                 a    TP
        Pred'            T̄                     /__\
        /  \          __/__               sheas Lilly
      is   ann       /     \
                    T      PredP
                          __/___
                         /      \
                        PP      Pred'
                       /__\     /___\
                  air a' bhòrd  ⟨is ann⟩
```

Following Davidson (1967) and much subsequent work, the PP is a predicate of events. I will interpret events here in a broader sense, identifying them with situations (see, for example, Elbourne 2005). The pronominal predicate, in this case, must then be a predicate of predicates of situations (type $\langle\langle s, t\rangle, t\rangle$) so the meaning of PredP works out as in (34). The variable $\wp$ ranges over predicates of situations:

(34)   a. $[[\text{Pred'}]] = \lambda\wp.\textbf{holds}(P, \wp)$
        b. $[[\text{air a' bhòrd}]] = \lambda e.\textbf{on}(\textbf{the} - \textbf{table}, e)$
        c. $[[\text{PredP}]] = \textbf{holds}(P, \lambda e.\textbf{on}(\textbf{the} - \textbf{table}, e))$

We now turn to the relative clause. In this case, the abstraction is again over some predicate of the situation (one suggestion for the case in hand would be to take the predicate to be a hidden locational argument):

(35) $[[\text{a sheas Lilly}]] = \lambda\wp.\exists e(\textbf{stand}(e) \wedge \textbf{holder}(\textbf{lilly}, e) \wedge \wp(e))$

Since the relative clause and the pronominal predicate are of the same semantic type ($\langle\langle s, t\rangle, t\rangle$), we can once again identify them, giving the meaning of the cleft as follows:

(36) $[[\text{Cleft}]] = \textbf{holds}(\lambda\wp.\exists e(\textbf{stand}(e) \wedge \textbf{holder}(\textbf{lilly}, e) \wedge \wp(e)), \lambda e.\textbf{on}(\textbf{the} - \textbf{table}, e))$
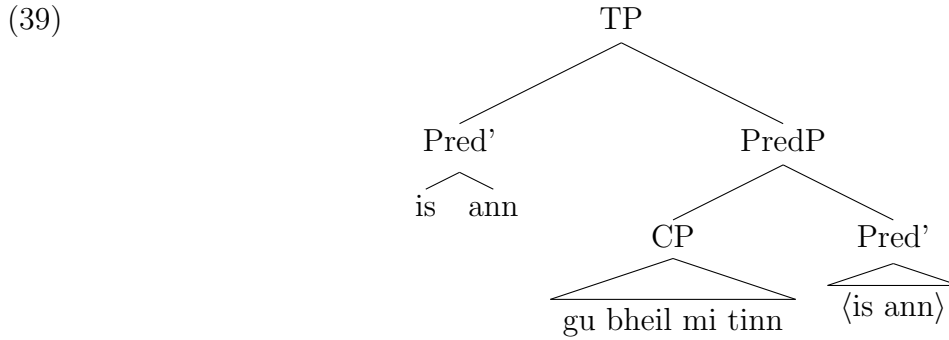
The assertion made here is that a property of a standing situation where Lilly is doing the standing is that (some relevant part of) that situation is on the table.

There is, however, an asymmetry in our treatment of *e* and of *ann* so far. While *ann* corresponds to a variable of type $\langle\langle s, t\rangle, t\rangle$, (where s is the type of situations), *e* corresponds to a variable of type $\langle e,t\rangle$ as well as to one of type $\langle\langle e, t\rangle, t\rangle$. Pursuing the parallelism, we expect to see a use of *ann* as a variable of type $\langle s,t\rangle$.

It turns out that Gaelic does have such a use of *ann*, as in the following:

(37) 'S   ann   gu bheil   mi tinn.
      COP IN.3SM that be.PRES.DEP I   ill
      'I'm sick'

(38) Chan   ann   gu bheil   sin fìor.
      COP.NEG IN.3SM that be.PRES.DEP that true
      'That's not true'

These clefts serve to mark emphasis on the situation itself, and are difficult to translate into English. However, our system provides them with an elegant syntax and semantics:

(39)

```
                        TP
                  ┌──────┴──────┐
               Pred'          PredP
               ┌┴┐        ┌──────┴──────┐
              is  ann     CP           Pred'
                          ┌─┴─┐         ┌─┴─┐
                    gu bheil mi tinn   ⟨is ann⟩
```

The clause *gu bheil mi tinn*, 'that I am sick' here is introduced by the dependent marking complementizer *gu*, signifying that it is not a relative clause (see Adger and Ramchand 2005). Syntactically, this clause is the subject of the predication, with *ann* in its usual predicate position.

Semantically, however, the clause is effectively the matrix assertion. The semantics predicted for this construction, given its syntax, is that some property of situations holds of whatever this clause denotes. Adger and Ramchand 2003 show that the subject of an ICC in general Gaelic has to be definite (or denote a kind):

(40) *Is   mòr duine
      Cop.PRES big man
      for 'A man is big.'

Given this, I suggest that the subject clause here denotes a definite situation. For concreteness, I take the situational variable of the subject clause to be bound by an iota operator which imposes a definite interpretation. This gives us the following semantic derivation for the PredP:

(41) a. $[[\text{Pred'}]] = \lambda e.\textbf{holds}(P, e)$
      b. $[[\text{gu bheil mi tinn}]] = \iota e.\textbf{sick}(\textbf{speaker}, e)$
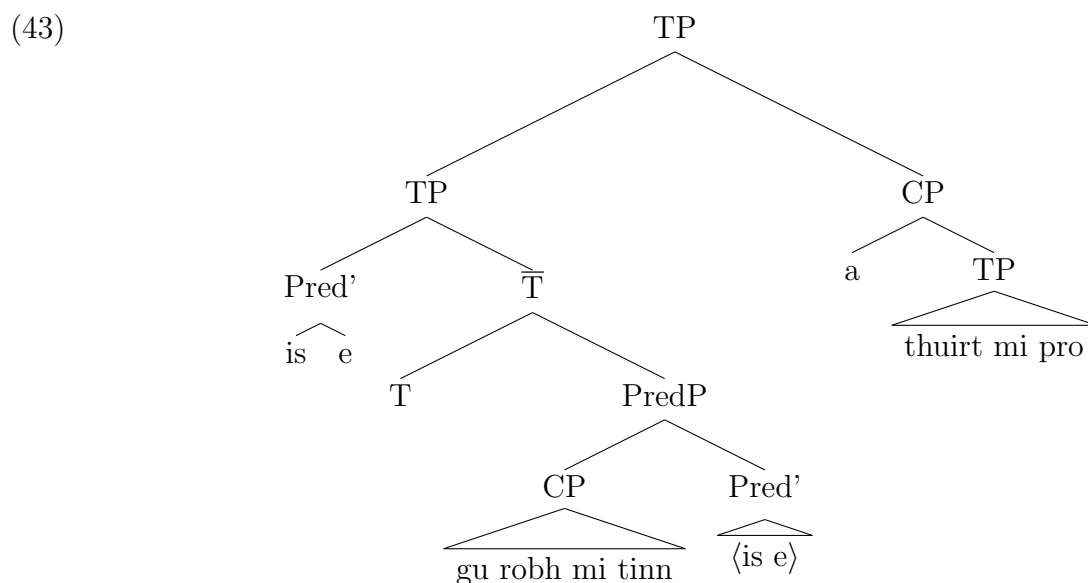   c. $[[\text{PredP}]] = \textbf{holds}(P, \iota e.\textbf{sick}(\textbf{speaker}, e))$

8

The assertion made is that some contextually salient property P holds of the situation where the speaker is ill. Although it is difficult to determine the precise pragmatic force of this construction, it seems plausible that the pragmatic processes are making use of the free variable given by the syntax.

We can contrast this with the clefting of a clausal argument, seen above in (5) and repeated here:

(42)　　'S　　　**e** [gu robh　　e tinn] a　　thuirt　　　mi.
　　　　Cop.PRES it that be.PAST.DEP he ill　　REL say.PAST.REL I
　　　　'What I said was that he was ill.'

In this construction, the relative clause denotes a predicate of propositions since it abstracts on the argument of the verb *thuirt* 'said'. There's a fundamental difference between this selected CP and the unselected CP discussed immediately above. The former is propositional, while the latter is situational (one says something or thinks something with the content of a proposition, but a matrix CP is fundamentally about the utterance situation). It is possible that this derives from a syntax for embedded clauses where they denote true DPs, with nominal characteristics (Kiparsky and Kiparsky 1970, Adger and Quer 2001, Takahashi in press). In order to match with the relative clause, the expletive where an argument CP is clefted must then be of type $\langle e, t \rangle$, . Following the pattern we have already seen, the expected morphological form for the expletive pronominal predicate is *e*:

(43)

```
                                TP
                   ┌─────────────┴─────────────┐
                   TP                           CP
            ┌───────┴───────┐              ┌─────┴─────┐
          Pred'             T̄             a           TP
          ╱╲          ┌─────┴─────┐                  ╱──╲
        is   e        T         PredP           thuirt mi pro
                            ┌─────┴─────┐
                           CP          Pred'
                          ╱──╲          ╱╲
                   gu robh mi tinn    ⟨is e⟩
```

This explanation of the contrast between the cleft of a clausal argument and the clefting of the matrix clause takes matrix sentences to be intimately related to the utterance situation, while embedded sentences are taken to denote something more akin to an entity than a situation. Whether this matrix/embedded distinction ramifies semantically across the language is something that needs further work.

3 Conclusion

The proposals defended above rest on a key assumption: the syntax of clefts in Gaelic is built on the syntax of predication, and predication is mediated by functional structure which introduces the relevant semantic relation. It is this that allows a unified view of *e* as a predicate of individuals and as a predicate of predicates of individuals (rather than, say, a type shifting operation). The two kinds of Pred (situational and individual), which share their syntax and their broad semantic function, allow for a further unification between *e* and *ann*, with the difference between the two expletives reducing to a difference in whether the assertion is fundamentally about an individual or about a situation (connecting, of course, to Kratzer 1995 and much other work).

We have effectively developed the following typology of cleft types in Gaelic, where **complex** specifiers of PredP are those with a complex type (either $\langle e, t \rangle$, or $\langle s, t \rangle$) while **atomic** specifiers are those with a simple type ($\langle e \rangle$, or $\langle s \rangle$). The table shows the semantic type and the syntactic category of the specifier of PredP and shows that the form of the expletive in the complement of Pred correlates with whether the predication is fundamentally about an individual or about a situation (I use angled brackets in this table, somewhat non-standardly, just to indicate the status of the enclosed symbol as a type):

(44)

	Complement of Pred			
	Situations		Individuals	
	ann		*e*	
Specifier of PredP	type	category	type	category
complex spec	$\langle s, t \rangle$	PP, AP, VP	$\langle e, t \rangle$	NP
atomic spec	$\langle s \rangle$	CP	$\langle e \rangle$	DP, CP

This brief paper has only scratched the surface of the highly complex system of Gaelic clefts, but I hope that it has shown that there is some mileage to be got from pursuing a unified analysis of both *e* and *ann* within a framework which distinguishes individual and situational variables.

References

Adger, David and Quer, Josep. 2001. The syntax and semantics of Unselected Embedded Questions. *Language* 77:107–133.

Adger, David and Ramchand, Gillian. 2003. Predication and equation. *Linguistic Inquiry* 34:325–359.

Adger, David and Ramchand, Gillian. 2005. Move and Merge: *Wh*-dependencies revisited. *Linguistic Inquiry* 36:161–194.

Chierchia, Gennaro. 1984. Topics in the syntax and semantics of infinitives and gerunds. Ph.D. thesis, University of Massachusetts at Amherst.

Davidson, Donald. 1967. The logical form of action sentences. In N. Rescher, ed., *The Logic of Decision and Action*, Pittsburgh: University of Pittsburgh Press.

Elbourne, Paul D. 2005. *Situations and Individuals*. MIT Press.

Kiparsky, Paul and Kiparsky, Carol. 1970. Fact. In Manfred Bierwisch and Karl Heidolph, eds., *Progress in Linguistics*, 143–173, The Hague: Mouton.

Kratzer, Angelika. 1995. Stage and individual level predicates. In Greg N. Carlson and Francois J. Pelletier, eds., *The Generic Book*, Chicago, IL: University of Chicago Press.

Percus, Orin. 1997. Prying open the cleft. In Kiyomi Kusumoto, ed., *Proceedings of North East Linguistic Society 27*, 337–351, McGill University: Graduate Linguistic Student Association.

Takahashi, Shoichi. in press. The hidden side of clausal complements. *Natural Language and Linguistic Theory* .