Formal Approaches to Celtic Linguistics

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Edited by

Andrew Carnie

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Formal Approaches to Celtic Linguistics,
Edited by Andrew Carnie

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Dedicated to the native speakers of the Celtic languages.

Although much of the theory presented here will seem alien to native speakers, please know that these papers are inspired by your commitment to your languages. We hope these technical analyses of the grammar bring some insight that will help our communities to revitalize, document and maintain the Celtic languages and the rich culture they embody.

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PREFACE AND ACKNOWLEDGEMENTS

The Celtic languages provide a fascinating opportunity for modern formal linguistics. They are typologically quite distinct from their Indo-European cousins – with their unique consonant mutations, verb initiality, clause initial particles, and other such properties – and yet they bring a diverse set of data to the study of microparameterization as well, with variation for example, in such things as the triggers and realization of epenthetic vowels, means and mechanisms for achieving VSO order and many other examples.

This volume brings together sixteen new papers on the syntax, phonology, phonetics, morphology, semantics and pragmatics of these languages. Fourteen of these papers were presented at the National Science Foundation sponsored Formal Approaches to Celtic Linguistics (FACL) Conference held at the University of Arizona in Tucson Arizona on March 27-29th, 2009. Two papers are new to this volume (McCloskey and Adger), but are by authors who presented different works at the conference. At the workshop there were also presentations by Elliot Lash, Máire Ní Chiosáin and Pauline Welby, Gillian Ramchand, and Maggie Tallerman. These works have, or will soon appear in other venues.

Writing with the biased perspective of a volume editor, I'm pleased to say that the papers presented herein are important contributions to the study of the Celtic Languages and formal linguistics.

The conference would not have succeeded without the help of many people and organizations. First, the conference and accompanying mini-course was funded by a grant from the US National Science Foundation[1]. The mini-course was taught in large part by Jim McCloskey, who we literally made talk for 5 hours a day for 5 days. Other instructors were S.J. Hannahs, Maggie Tallerman, Mike Hammond; we also had guest lectures by Andrew Carnie and Diana Archangeli. Heidi Harley wasn't an official instructor, but she really should have been since she attended every section and kept the discussion lively and exciting. I'd like to thank all the students who enrolled in the course, especially those who travelled from around the world to attend. The grant management, minicourse and conference would not have worked without both the ever-patient staff in

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the University of Arizona Linguistics Department (Kimberley Young, Marian Wiseley and Jennifer Columbus). The details of the minicourse and conference were managed by an incredible student committee: Curtis Durham, Ben Fletcher, Colin Gorrie, Kenne Likkel, Leila Lomashvili, Chen Chun E, Ryan Nelson, Sylvia Reed, Deniz Tat, Alex Trueman. Various other folk helped endlessly as volunteers including: Adam Ussishkin, Mary Willie, Muriel Fisher, Sylvia Reed, Jessamyn Schertz.

Once the conference was over, the hard work of writing and reviewing papers began. The following scholars were kind enough to donate their time reviewing the papers in this volume. I know that the authors are very grateful for your time and sage advice: David Adger, Diana Archangeli, Ryan Bennett, Sonya Bird, Andrew Dowd, Eithne Guilfoyle, Emily Elfner, Colin Gorrie, Jenny Graver, Aaron Griffiths, Michael Hammond, S. J. Hannahs, Randy Hendrick, Mélanie Jouitteau, Simin Karimi, Elliot Lash, Ann Mulkern, Máire Ní Chiosáin, Kenji Oda, Jeff Punske, Sylvia Reed, Louisa Sadler, Jim Scobbie, Natasha Warner, and David Willis. Some of these reviewers did double duty and actually reviewed more than one paper! The valuable contributions of all of these folk cannot be underestimated.

Finally, I'd like to thank the staff and production team at Cambridge Scholars Press, for helping us to get this project to market.

—Andrew Carnie
Tucson, December 17, 2010.

PART 1:

PAPERS IN SYNTAX, MORPHOSYNTAX AND SEMANTICS

CLEFTED SITUATIONS:
A NOTE ON EXPLETIVES IN SCOTTISH GAELIC CLEFTS[1]

DAVID ADGER

1. Varying Expletives in Clefts

In Scottish Gaelic, the form of the expletive in a cleft construction varies depending on the category of the element that 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.3SM   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.3SM   beautiful   REL   be.PRES   she
      'She's beautiful'

b. 'S   **ann** [gu slaodach] a   tha   i   a'   ruith.
    COP.PRES in.3SM 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.3SM SIMP kiss.VN Calum.GEN   REL be.PAST Seònag
    'What Seònag was doing was kissing Calum'

d. 'S   **ann** [air a'   bhòrd]   a   dhanns   Seònag.
    COP.PRES in.3SM on the.DAT table.DAT REL 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]
    COP.PRES it the book   that   PRT read.vn

    a   dh'iarr   e   orm.
    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 that 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.REL 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 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 unanalyzed, 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   the   man   that
     '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.'

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'            T'
          ┌──┴──┐       ┌───┴───┐
        Bu  thidsear   T      PredP
                            ┌───┴───┐
                         Calum    Pred'
                                   ╱△╲
                              ⟨ bu thidsear ⟩
```
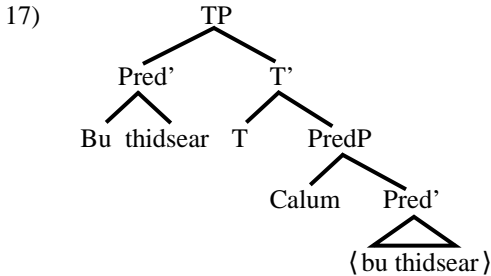
Semantically, they treat the copula as introducing a **holds** predicate that directly predicates a property of an individual:

18)   a.   ⟦Pred'⟧ = $\lambda x.$**holds**(**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°, so that (19), receives the analysis in (20):

19)   Is   e   Lilly.
      COP   it   Lilly
      'It's Lilly'
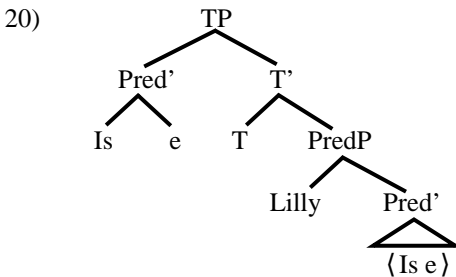
20)

```
                    TP
              ┌──────┴──────┐
           Pred'            T'
          ┌──┴──┐       ┌───┴───┐
        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 a variable over properties:[2]

21)   a. $[\![\text{Pred'}]\!] = \lambda x.\textbf{holds}(P, x)$

       b. $[\![\text{Lilly}]\!] = \textbf{Lilly}$

       c. $[\![\text{PredP}]\!] = \textbf{holds}(P, \textbf{Lilly})$

Although it is not made explicit in Adger and Ramchand (2003) (where the primary purpose was to analyze 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   REL   jump.PAST
      'It's Lilly that jumped'

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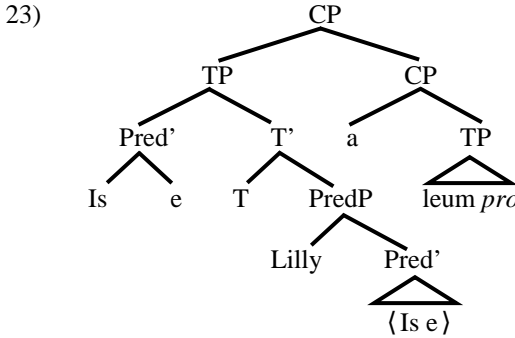
Assuming that the relative clause denotes a predicate of individuals, its semantics is straightforward (I adopt Adger and Ramchand's (2005) analysis of relatives where the relative complementizer binds a null pronominal in Gaelic, although nothing hangs on this)

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

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

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[2] 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.

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) $[\![Cleft]\!] = \textbf{holds}(\lambda x\ \ e.\textbf{jump}(e) \wedge \textbf{agent}(x, e) \wedge \textbf{past}(e), \textbf{Lilly})$
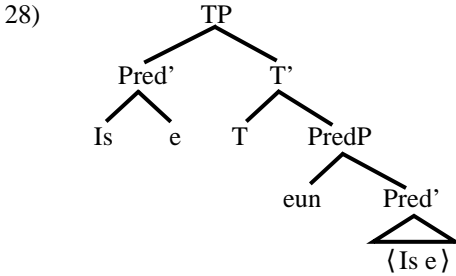
Turning now to predicate nominals, recall that these too appear with *e*.

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:[3]

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)
```
                        TP
                  ／          ＼
              Pred'            T'
             ／    ＼        ／    ＼
           Is      e      T      PredP
                                ／    ＼
                             eun      Pred'
                                     ／▲＼
                                    〈Is e〉
```

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

_____

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

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

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

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

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 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.3SM   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)
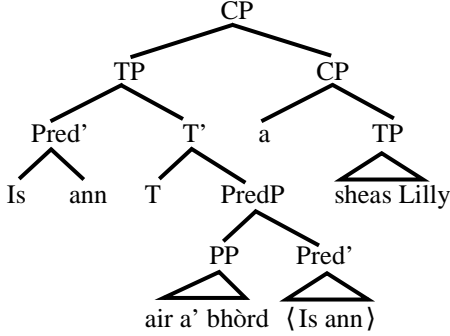
Following Davidson (1967) and much subsequent work, the PP is a predicate of events. I will interpret events here in a broader sense, identifying them with situations (see, for example, Elbourne 2005). The pronominal predicate, in this case, must then be a predicate of predicates of situations (type $\langle\langle s, t\rangle, t\rangle$) so the meaning of PredP works out as in (34). The variable $\wp$ ranges over predicates of situations:

34) a. $[\![\text{Pred'}]\!] = \lambda\wp.\text{holds}(P, \wp)$

   b. $[\![\text{air a' bhòrd}]\!] = \lambda e.\textbf{on}(\textbf{the-table}, e)$

   c. $[\![\text{PredP}]\!] = \textbf{holds}(P, \lambda e.\textbf{on}(\textbf{the-table}, e))$

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

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) $[\![\text{Cleft}]\!] = \textbf{holds}(\lambda\wp.\ e(\textbf{stand}(e) \wedge \textbf{holder}(\textbf{lilly},e) \wedge \wp(e)), \lambda e.\textbf{on}(\textbf{the-table},e))$

The assertion made here is that a property of a standing situation where Lilly is doing the standing is as follows: (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 ⟨e, t⟩ as well as to one of type ⟨⟨e, t⟩, t⟩. Pursuing the parallelism, we expect to see a use of *ann* as a variable of type ⟨s, t⟩.

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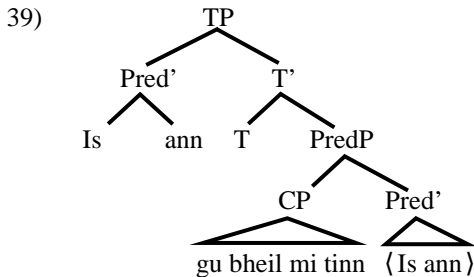
The clause *gu bheil mi tinn*, 'that I am sick' here is introduced by the dependent marking complementizer *gu*, signifying that it is not a relative clause (see Adger and Ramchand 2005). Syntactically, this clause is the subject of the predication, with *ann* in its usual predicate position.

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 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. $[\![\text{PredP}]\!] = \textbf{holds}(P, \iota e.\textbf{sick}(\textbf{speaker}, e))$

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)
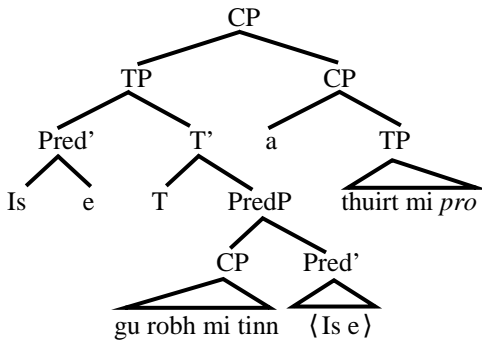
This explanation of the contrast between the cleft of a clausal argument and the clefting of the matrix clause takes matrix sentences to be intimately related to the utterance situation, while embedded sentences are taken to denote something more akin to an entity than a situation. Whether this matrix/embedded 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 that 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)

	Complements of Pred			
	Situations (ann)		Individuals (e)	
Specifier of PredP	type	category	type	category
complex	$\langle s, t \rangle$	PP, AP, VP	$\langle e, t \rangle$	NP
atomic	$\langle s \rangle$	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 that distinguishes individual and situational variables.

THE INTERACTION OF LINEARIZATION AND PROSODY: EVIDENCE FROM PRONOUN POSTPOSING IN IRISH[*]

EMILY ELFNER

1. Introduction

Word order in Modern Irish is VSOX in finite clauses, where X is an adjunct or indirect object. However, weak pronoun objects can occupy a position further to the right in the sentence as compared to full DP or strong pronoun objects. This rightward displacement is referred to as pronoun postposing (Chung & McCloskey 1987; Duffield 1995; Adger 1997, 2007; Doyle 1998; McCloskey 1999, Mulkern 2003, this volume):[1,2]

1) *Full DP and strong ('emphatic') pronoun objects precede an adjunct or adverb:*
   a. Léigh Liam **leabhar/eisean**   ar an traein aréir.
      read   Liam book/it.STR   on the train   last.night
      'Liam read a book/IT on the train last night.'

[1] Pronoun postposing also occurs in Scottish Gaelic. However, I limit my discussion to Modern Irish. All data are from Modern Irish.
[2] Abbreviations used in example sentences: AUT 'autonomous', COP 'copula', FUT 'future tense', GEN 'genitive', NOM 'nominative', PST 'past', PRT 'particle', STR 'strong', VN 'verbal noun', WK 'weak'.

   b. *Léigh   Liam ar an traein **leabhar/eisean**   aréir.
       read   Liam on the train book/it.STR   last.night

   c. *Léigh   Liam ar an traein aréir   **leabhar/eisean**.
       read   Liam on the train last.night book/it.STR

2) *Weak pronoun objects can follow an adjunct, either medially (2a) or finally (2b)*[3,4]
   a. ?LéighLiam *é*   ar an traein   aréir.
       read   Liam it.WK on the train   last.night
       'Liam read it on the train last night.'

   b.   Léigh Liam ar an traein *é*   aréir.
        read Liam on the train it.WK last.night

   c.   Léigh Liam ar an traein aréir   *é*.
        read Liam on the train last.night it.WK

There does not appear to be any difference in semantic interpretation between (1) and the various positions of the pronoun in (2), and the placement of the weak pronoun may be unrelated to discourse factors (McCloskey 1999, but see Mulkern 2003, this volume). However, weak pronouns differ from full DPs (which contain lexical words) and strong pronouns by being prosodically weak, suggesting that pronoun postposing may be prosodically motivated (see also Adger 1997, 2007; Doyle 1998; McCloskey 1999).

    Following this line of reasoning, I argue that the positioning of weak object pronouns is not syntactic, but that pronouns are postposed in order to satisfy a prosodic well-formedness constraint against weak elements in the initial position of phonological phrases (φ[5]). I analyze the patterns using violable constraint interaction under an Optimality Theoretic

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[3] The status of (2a), where the weak pronoun is not postposed, is unclear. For many speakers, this is perfectly acceptable, but can be vaguely dispreferred to (2b) or (2c). Some older speakers seem to have a stronger dispreference for this positioning. I will assume that this option is available to most speakers, but mark these sentences with a question mark.

[4] Unlike Scottish Gaelic, all weak pronouns, including first and second person, postpose in Irish.

[5] Here, and elsewhere in this paper, I use the following symbols to abbreviate prosodic categories: ω refers to a prosodic word, φ to a phonological phrase, and ι to an intonational phrase.

framework (OT, Prince & Smolensky 1993/2004) with phase-based Multiple Spell-Out (Chomsky 2000). Under this model, a ranked constraint hierarchy evaluates potential candidates for surface linearized form at the Spell-Out of each phase. Normal word order can be altered to fulfill prosodic requirements when prosodic constraints outrank constraints on linearization. I propose that pronoun postposing in Irish results from just such a conflict between prosody and linearization (see also López 2009 for a similar analysis of clitic dislocation in Romance languages).

I argue that normal linearization of the weak pronoun object – based on syntactic linearization as by a linearization algorithm such as the Linear Correspondence Axiom (LCA, Kayne 1994) – would result in a prosodically suboptimal surface form. This follows from the assumption that under the Multiple Spell-Out hypothesis, syntactic structure is spelled-out in chunks corresponding to phases. I assume that vP is a phase, that the complement of *v*P constitutes a Spell-Out domain (Chomsky 2000), and that this Spell-Out domain corresponds to a prosodic domain (Adger 2006, Ishihara 2007). Because objects in Irish are syntactically initial in the complement of *v*P, unpostposed weak pronouns would be initial in φ, a position that prefers prosodically strong rather than weak elements.

Like other prosodic constituents, φs have a dispreference for weak independent elements that are initial within their domains (Selkirk to appear). Syntactic function words differ from lexical words and emphatic pronouns by not being spelled-out as prosodic words (ω, Selkirk 1995) such that they are prosodically weak. The absence of weak pronouns in φ-initial position in Irish can be interpreted as a prosodic requirement that the initial element in φ be relatively strong: pronoun postposing satisfies the prosodic constraint against initial weak elements by removing the weak element from φ-initial position.

2. Theoretical background

2.1. Syntactic Assumptions

I claim that weak pronoun objects and other objects occupy the same position in syntactic structure, regardless of their surface form. This runs counter the claims of most previous proposals (Chung & McCloskey 1987, Duffield 1995, Adger 1997, Doyle 1998, with the exception of McCloskey 1999 and Adger 2007), where pronoun postposing is thought to arise from syntactic movement, even though this movement may be prosodically motivated. Throughout this paper, I will assume the following syntactic structure for a VSOX finite clause in Irish, where

objects of any kind undergo obligatory object shift from Comp,VP to Spec,μP:

3) a. Léigh Liam leabhar aréir
        read   Liam book   last.night
        'Liam read a book last night.'

b.
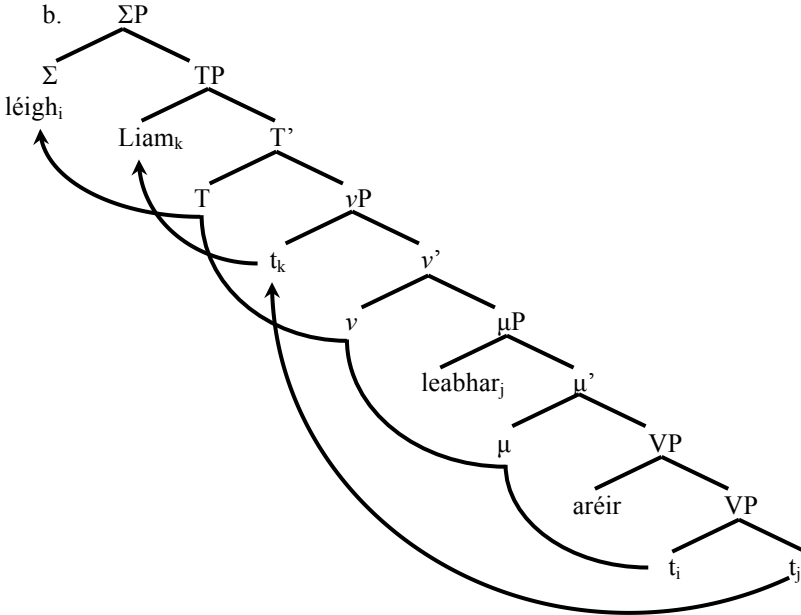
This structure relies on the following assumptions:

- Following the arguments in McCloskey (2001, 2009), the subject raises to Spec,TP, and the verb raises to a functional projection ΣP that is higher than the subject but below CP.
- I assume the Split VP hypothesis (Koizumi 1995). Objects move from Comp,VP to a higher position below v (Spec,μP, following Johnson 1991; see also Carnie 1995 for a similar proposal using AgrO).
- Adjuncts are VP adjuncts, and are thus below vP.

Pronouns occupy the same syntactic position as other objects in Irish: Spec,μP. This is their position prior to Spell-Out.