Introduction

In this paper, we will account for some puzzling alternations of word order found in Modern Irish copular constructions. We will claim, in particular, that these alternations are part of a complex interaction between head movement of predicates, definiteness effects, and pronominal object shift. In particular, we argue that complex phrasal nominal predicates undergo head movement in Modern Irish.

The various orderings of the modern Irish copular constructions are seen in the sentences in (1). (Throughout, the notional subject is indicated in **bold**, the property being attributed to that subject is indicated in *italics.*)

1) a) Is é **Jean Luc Picard** an *captaen*  
    *C* him the captain  
    “Jean Luc Picard is the captain”

   b) Is *dochtúir aímhithe* (i) **Beverly Crusher**  
    *C* doctor *animals* (agr)  
    “Beverly Crusher is a doctor of animals

   c) Is é *an dochtúir* é  
    *C* him *the doctor* *him*  
    “he is the doctor”

In sentences (b) and (c), the subject follows the predicate, while in (a) the reverse order appears.

We will start out by quickly sketching our analysis of Irish copular constructions and discussing the structure of sentences like those in (1). We
will then present some evidence from extraction phenomena, anaphoric islands, and the responsive system to support our hypothesis.

1. **Background**

1.1 **Irish Word Order**

Irish is a VSO language, as is seen in (2).

2) Leanann an t-ainmní an bhriathar i nGaeilge  
   *follow.PRES the subject the verb in Irish*  
   ‘The subject follows the verb in Irish’

Following McCloskey (1983) among many others, we will assume that this order is derived from an underlying SVO order. Adopting the analysis from Bobaljik and Carnie (1992), the surface order is derived by the head movement of V to the highest Inflectional head (3).

3) \[ \text{[AgrSP} \text{[AgrS} \text{[TP} \text{T} \text{[AgrOP} \text{[AgrO} \text{[VP} \text{V} \text{]} \text{]} \text{]} \text{]} \text{]} \text{]} \]

We will not adopt any position here about the location of nominal elements, instead will simply assume the account of Bobaljik and Carnie (1992) where the subject is in the specifier of TP, and the object in the specifier of AgrOP (4), giving the structure in (5).

4) \[ \text{[AgrS} \text{[T} \text{[AgrO} \text{[subj} \text{[V} \text{obj} \text{]} \text{]} \text{]} \text{]} \text{]} \]

5) \[ \text{[AGRSP} \text{[AgrS +T +V+AgrO]} \text{[TP} \text{Subj} \text{[ti} \text{[AGROP} \text{Obj} \text{[ti} \text{[VP} \text{tj} \text{ti} \text{tk} \text{]} \text{]} \text{]} \text{]} \text{]} \text{]} \]

1.2 **Some background on “Be” in Irish**

Irish has three different "be" constructions. A verbal "be" (6) is found with adverbial, prepositional, adjectival, and verbal predicates.

6) Tá an dochtúir mór  (adverbs, PPs, adjectives, Verbs  
   “the doctor is big” 

   Stage level nominal predicates

Irish also has a non-verbal construction, using the tense/aspect complementizer *Is*. This is found with individual level nominal predicates and lexically marked APs and PPs. This comes in two basic orders, one where the subject (in bold) is preceded by the predicate (in italics) which is
only found with definite predicates (seen in 7a), and one where the subject precedes the predicate (seen in 7b)

7)  a) Is dochtúir ainmhithe (i) **Beverly Crusher**
C doctor animals (agr)
“Beverly Crusher is a doctor of animals”

b) Is í Beverly Crusher *an dochtúir ainmhithe*
"Beverly Crusher is the doctor of animals"

In most of the traditional literature (e.g. ó Siadhail (1989)), the *is* morpheme is treated like a verb. We assume, following Carnie (1993), Doherty (1992) and Ahlqvist (1972) that it is really a complementizer particle, which bears aspect and tense features, i.e. is not a lexical verb. Tá, on the other hand is a real verb. It functions as an auxiliary and is found productively with adjectival, adverbial, PP, and verbal predicates. It is never found with nominal predicates:

8)  a) Tá sé mór
    Be.pres he big
    “he is big”

b) Tá Seán go maith
    be.pres John adv well
    “John is well”

c) Tá Seán i mBaile Átha Claith
    be.pres J in Dublin
    “John is in Dublin”

d) Tá Seán ag rith
    be.pres J prog run.dvn
    “John is running”

e) *Tá sé dochtúir
    be.pres he doctor
    “He is a doctor”

*Is is found almost exclusively with nominal predicates. It is generally not found with adjectival or prepositional predicates (9).

9)  a) Is dochtúir mé “I am a doctor” (NPs - Productive)
C doctor I

b) *Is cliste iad
    C clever them
    “they are clever” (*adj)

c) *Is i nDaoire Seán
    C in Derry J
    “*John is in Derry” (*PP)

d) *Is ag rith é
    C prog run him
    “he is running” (*Verb)

The few adjectival and prepositional exceptions to this rule, as noted by Doherty (1992), are all individual level predicates (10):

10) a) fiú worthwhile fior true
    maith good olc evil
    aisteach odd iontach wonderful
Doherty (1992) claims that the choice between *is* and *tá* follows from the stage/individual level distinction of Carlson (1977), *is* being found exclusively with individual level predicates. This is consistent with the interpretation of nominal clauses in Irish. In English, a sentence like (11a) is ambiguous in its readings. The Irish equivalent in (12) can only have individual level readings. To get the stage level reading, a different construction must be used: that in (13), which uses the stative aspectual preposition *ina*. The *is* morpheme is ungrammatical in this context (14).

11) a. John was a doctor
    b. PAST [doctor'(John)] Individual level
    c. (∃ L)[PAST(L) & doctor'(John,L)] Stage level

12) Ba dhochtúir Seán
    C.past doctor him
    “he was a doctor”

13) Bhí Seán ina dhochtúir (ach níl díolúine aige anois)
    Be.past J in.his doctor (but be.not license at.3.s now)
    “John was a doctor (but he doesn’t have a license now)

14) *Ba dhochtúir é ach níl díolúine aige anois
    “He was a doctor but now he doesn’t have a license”

Unfortunately, the stage/individual level distinction does not suffice to determine when you use *is* or *tá*. There are some individual level predicates that only ever appear with *tá*. This is seen in (15).
Carnie (1993) argues that the distinction follows rather from what elements are allowed to undergo head movement for feature checking in a given language. He argued that nominal predicates are allowed to bear inflectional features in Irish, and behave like verbs in that they undergo head movement to the front of the clause, as schematized abstractly in (16).

\[
[FP^{...} F \ldots F \ldots [NP^{N\ldots}]]
\]

This approach is supported by facts from small clauses (Chung and McCloskey 1987) where, unlike other non-verbal predicates, nominal predicates are not allowed (17). The ungrammaticality of (17b) follows from the fact that nominal predicates in Irish must bear inflectional features. Since small clauses don't have inflectional heads, this predicate has nothing to check its features against.

17) a) Agus [é i gCalafóirnia]... 
   “And he is/was in California”
   And him in California

   b) *agus [é dlíodóir] 
   “and he is/was a lawyer”
   and him lawyer

2. Two Kinds of Is

The analysis above leads us to a very straightforward account of the word order alternation seen in (7) above. Recall the two different word orders, seen in (18) below. The predicate (b) first order is found with indefinite attributed properties, the subject first order is found only with definite attributed properties.

18) a) Is é Jean Luc Picard an captaen
   C agr
   “Jean Luc Picard is the captain”

   b) Is dochtúir (i) Beverly Crusher
   C doctor (agr)
   “Beverly Crusher is a doctor”
Notice that this word order alternation is very different from the canonical/reverse distinction of Moro (1993). The alternation seen here is completely dependent upon the definiteness of the predicate NP; a feature not found in the alternations Moro discusses. In fact, the reverse/canonical alternation can be found only as a subtype of the clauses seen in (18a). Note in particular the positioning of the agreement morpheme, which precedes both nominals.

19) a) Is é Jean Luc Picard an captaen (canonical)
    b) Is é an Captaen Jean Luc Picard (reverse)

The reader will note that in contrast to the sentences in (19) the optional agreement morpheme in sentence (18b) must follow the indefinite predicate NP and precede the subject NP. In addition the reverse/canonical pairs are never allowed with sentences of the type seen in (18b). The alternation in (18) thus seems to be of a different nature than those treated by Moro, and will not discuss the canonical/reverse distinction further. For more discussion see Carnie (forthcoming).

The predicate first order is immediately accounted for by the head raising analysis presented in section (1), i.e. the indefinite nominal predicate raises just like a verb. The subject first order is more complex, however. We follow Rapoport (1987), among many others, in assuming that definite and indefinite attributed properties have different argument structures (contra Heggie (1988) and Moro (1993)). Sentences like (18a) have an abstract two place COP predicate which take both the subject and the property being assigned to that subject as arguments (20a) which are assigned different theta roles (attribute, and attribute recipient). The indefinites, on the other hand, directly theta-mark their subject with the recipient role (20b). This corresponds to the fact that definite NPs are referring expressions and have saturated argument structures, whereas indefinite NPs are not referring expressions and can directly predicate another noun.

20) a) [COP (NP1, NP2)]
    b) [NP (NP)]

With definite predicates like that in (18a) then, it is the abstract predicate COP, not the nominal predicate, that undergoes head movement. The COP

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1This of course is a simplification, since there are cases where indefinite NPs cannot participate in the canonical/reverse construction discussed in Moro. We will not discuss this here, and refer the reader to Moro (1993) for discussion.
morpheme is realized phonologically with the subject agreement features of the AgrS head, in the form of a pronominal element. Both nominals appear in argument positions. This is seen in (21)

\[
[\text{CP Is } \text{[AgrSP[ AgrS [ T [ AgrO [ subj [ COP Attribute]]]]]]}]
\]

This can be contrasted with indefinite predicates, where the predicate nominal itself undergoes the raising (22).

\[
[\text{CP Is } \text{[AgrSP[ AgrS [ T [ AgrO [ subj [ Attribute]]]]]]}]
\]

2 We have not attempted to deal with the issue of case here. However, we can speculate briefly about the accusative case found on the subject nominal.

i. Is dochtúir é
   Cop doctor him.acc
   He is a doctor.

It appears as if the subject is showing up with accusative case. We believe that, surface phonology to the contrary, these NPs are not, in fact, accusative (for an alternative view see Carnie 1993). For all NPs, except 3rd person pronouns, there is no morphological case difference between nominative and accusative case. Nominative case pronouns are simply the accusative forms preceded by an “s” (i/)

(ii):

\[
\begin{align*}
\text{Chuir} & \quad \text{Lwaxana Troi agus é an ríomhaire sa réallong} \\
\text{Put.past} & \quad \text{and him the computer in.the starship}
\end{align*}
\]

“He and Lwaxana Troi put the computer in the starship”

The “s” forms are only a feature of the basic “é/i/iad” set being cliticized to the right of a tense verb (iv):

\[
\begin{align*}
\text{Chuir} & \quad \text{sé an ríomhaire sa réallong} \\
\text{Put.past} & \quad \text{he the computer in.the starship}
\end{align*}
\]

On this account, nominative case is assigned to the subjects of copular clauses, just as in normal verbal clauses. The lack of the “s” is attributable to the fact that these pronouns are not adjacent to a tensed verb, but to a noun (or abstract COP).
There is, in fact, one more non-clefted order of the Irish copula construction seen in (23).

23)  
Is é an dochtúir é
C agr the doctor him
“he is the doctor”

Given that there is a definite predicate or attribute, we predict that the subject pronoun should follow the agreement morpheme in the “subject” position. Instead it appears after the predicate. To account for this order, we turn to the phenomenon of Weak Pronoun Post-posing discussed in Chung and McCloskey (1987) and Duffield (1994). Weak pronominal objects shift to the right as seen in (24)

24) a)  Scaoil an Captaen na féasair ag na Clingiónaí  
Fired the Captain the phasers at the Klingons  
“The Captain fired the phasers at the Klingons”

b)  ?Scaoil an Captaen iad ag na Clingiónaí  
“The Captain fired them at the Klingons”

c)  Scaoil an Captaen ag na Clingiónaí iad  
“The Captain fired them at the Klingons”

Since the pronominals in the copular clause are weak grade, they are also subject to this rightward movement (25)

25)  
[ Is [ [AgrS é] [TP é [ an dochtúir]]]]   

This, then, derives the three basic word orders of Irish copular clauses. A summary of clause types is given in (26).
Evidence for the Head Movement Analysis

In section 2, we proposed that indefinite nominal predicates undergo head raising for feature checking in order to account for their initial position in the clause. Given that by definition head movement is the raising of heads, the question of how a phrasal or complex nominal predicate can participate in this process arises. Surprisingly in Irish, entire phrasal and complex NPs appear in this first position (27), a position we claim is associated with head movement.

At first, this may seem to be strong evidence against the head movement analysis suggested above. However, there is extensive evidence that in fact these complex phrasal elements are behaving like heads. We suggest that for all indefinite nominal predicates it is really the indefinite determiner (a normally phonologically null element) which functions predicationally, and that all the complements to this determiner incorporate into it. It is this determiner head then which undergoes the head movement (28), thus accounting for the apparent anomalous appearance of complex predicates in a position normally reserved exclusively for heads.
In this section, we will present three types of evidence that show that such incorporation takes place. Evidence from wh-extraction, anaphoric islands, and the responsive system all suggest that indefinite NP predicates form incorporated heads, since they behave more like words than phrases.

### 3.1 Evidence from wh-extraction.

One piece of evidence in favor of the incorporated status of indefinite nominal predicates comes from wh-extraction. The argument is as follows. If predicates have undergone head movement forming complex heads, then the subcomponents should not be able to extract via wh-movement. Before proceeding to the actual test, it is worth noting that Moro (1993) and Heycock (1991) have argued that a similar blocking of extraction from copular clauses in English can be accounted for using subjacency. However, Irish does consistently allow subjacency/ECP type violations (McCloskey 1979). If the speaker leaves a resumptive pronoun at the extraction site and changes the highest complementizer from $a^L$ to $a^N$, then a sentence with such a violation is rendered grammatical (see McCloskey 1979 for more details). This is seen in the following examples. In (29), we have an example of a sentence with a wh-island. Wh-movement of the subject of the embedded clause (29b) is licit, as long as the highest complementizer is $a^N$, and the resumptive pronoun sé ‘him’ is found at the extraction site. The ECP and subjacency are allowed to be violated under such conditions. Similar facts are found with nominal islands as is seen in (30).

29) a) Biónn fios agat i gconaí $\left[ \text{cp caidé} \right]_j a^L$ bhuailfidh an píobaire t1
   
   be.hab know at.2.s always $\text{what}_j$ COMP play.fut the piper t1
   
   “You always know what the piper will play”

   b) Cén Píobaire $\left[ \text{cp a}^N \right]_m$ bhfuil agat i gconaí $\left[ \text{cp caidé} \right]_j a^L$ bhuailfidh séj t1
   
   Which COMP be.pres his mother COMP play.fut. him
   
   “Which piper do you always know what he will play”

30) a) Tá máthair an fhir san otharlann
   
   Be.pres mother the man.gen in.the hospital
   
   “The man’s mother is in the hospital”

   b) Cé $\left[ \text{cp a}^N \right]_m$ bhfuil a1 mháthair san otharlann
   
   who COMP be.pres his mother in.the hospital
   
   “Who is (his) mother in the hospital”

Given that such extraction is licit, we can use wh-extraction as a test for the “word” or incorporated status of a nominal, in contrast to the situation found in English, discussed by Moro (1993) and Heycock (1991) where subjacency violations are indications of islandhood. If wh-extraction is licit, then the sequence of morphemes is phrasal, if wh-extraction is illicit, then it is functioning like a single word.
This pattern is exactly what we find with nominal predicates. An incorporated indefinite NP predicate like that in (31) does not allow extraction, despite the fact that Irish normally allows extraction out of nominal islands (arb is the special form of aN found in copular clauses).

31) a) Is [np amhrán₁ [cₚ a₁ bhualfídh an piobaire t₁]][(é) "Yellow Submarine"
  C song COMP play.fut. the piper agr
  "'Yellow Submarine' is a song which the piper is going to play"

  b) *Cén Píobairej arb [np amhrán₁ [cₚ a₁ bhualfeadh séj t₁]][(é) "Yellow Sub"
  Which piper rel song COMP play.cond him agr
  "*Which Piper is 'Yellow Submarine' a song which he/t₁ is going to play"

These can be strikingly contrasted with the definite NP attributes, which are not predicates and do not undergo incorporation or head movement. In these sentences wh-extraction from the definite NP is licit.

32) a) Is é "Yellow Submarine"[np an t-amhrán₁ [cₚ a₁ bhualfídh an piobaire t₁]]
  C agr the song COMP play.fut. the piper
  "'Yellow Submarine' is the song which the piper is going to play"

  b) Cén Píobairej arb é 'Yellow Submarine' [np an t-amhrán₁ [cₚ a₁ bhualfeadh séj t₁]]
  Which piper rel agr the song COMP play.cond him
  "Which Piper is 'Yellow Submarine' the song which he/t₁ is going to play"

This conclusion is given support by the in situ status of wh-questions of subconstituents in Irish questions. In Irish, wh-movement is always marked by a wh-complementizer. In the formation of wh-questions of indefinite nominal predicate constituents, however, no such wh-complementizer is ever found (33), showing that questions have the wh-element in situ. Wh-in situ is found nowhere else in this language.

33) a) *Cad arb a dochtuir (é) McCoy
  What rel his doctor agr McCoy
  "*What would McCoy be a doctor of?"

  b) Cen sort dochtura (é) McCoy
  What kind doctor, gen agr McCoy
  "McCoy is what kind of Doctor?"

3.2 Evidence from Anaphoric Islands

Slightly more subtle evidence comes from the binding theory. In English, binding out of a phrase (as in 34a) is licit. The word “animal” can serve as an antecedent to the pronoun. In (34b and c) however, we see that binding
out of a syntactic compound is noticeably degraded\(^3\), and that binding from a lexical compound is completely ungrammatical.

34) a) \textit{Binding from a phrase:}\n
John is [a doctor of [animals]] but he is allergic to them\(^i\)

b) \textit{From a “syntactic” compound:}\n
?John is [an [animal]\(^i\) doctor] but he is allergic to them\(^i\)

c) \textit{From a lexical compound:}\n
*My favorite tool is the fly\(^i\)-swatter but they\(^i\) are all extinct

We can use this as a diagnostic for “word” status. If we compare the definite and indefinite sentences we see there is a similar contrast in the binding facts. Binding out of the incorporated indefinite is less grammatical (35a) than binding out of the clearly phrasal element in (35b)

35)a) ?Is dochtúir aímhíthe\(^i\) Seán ach is fuath leis iad\(^i\)

C doctor animals John but C hate with.3 them

John is a doctor of animals but he hates them(animals)

b) Is é Seán an dochtúir aímhíthe\(^i\) ach is fuath leis iad\(^i\)

C agr J the doctor of animals but C hate with.3 them

John is the doctor of animals but he hates them(animals)

This is consistent with the notion that the indefinite head moved predicate NP is really an incorporated structure.

2.3 \textbf{Evidence from the Responsive System.}

Finally, there is some evidence that not only are these predicates incorporated words, but that they are not in a specifier position either. Moro (1993), Heggie (1988), and Heycock (1991) have all argued that in the English reverse copular construction the predicate NP is in a specifier position (For Moro and Heycock this is the specifier of IP, for Heggie the specifier of CP). We claim that there is substantial evidence that this is incorrect at least for Irish. This evidence comes from the responsive system.

In order to understand how this works, however, we must first discuss complementizer cliticization. McCloskey (1992) argues in some detail that complementizers in Irish lower to adjoin to the verb in its inflectional head. This is schematized in (36). We refer you to his work for more details.

\(^3\)Thanks to Michael Rochemont for pointing this out to us.
Turning now to the issue at hand, Irish has no words for yes or no. Instead the verb is repeated in either the positive or negative form as seen in (37), where the negative form is indicated by an adjoined complementizer:

37) a) An bhfaca tú an Ferengi?  b) Ní fhaca OR c) Chonaic
Q saw you the Ferengi  Neg saw Saw
"Did you see the Ferengi?"  "no"  "yes"

This can be analyzed as the elision of everything to the right of the verb in a manner familiar from VP ellipsis (38).

38) Elide everything except AgrS(and adjoined complementizer)

For example, you elide the shaded parts of the sentence schematized in (39).

39)

<table>
<thead>
<tr>
<th>C +</th>
<th>AgrS</th>
<th>Spec,TP</th>
<th>Spec,AgrO</th>
<th>R-adj</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ní</td>
<td>fhaca</td>
<td>Seán</td>
<td>an-ferengí</td>
<td>inné</td>
</tr>
<tr>
<td>Neg</td>
<td>Saw</td>
<td>John</td>
<td>the-Ferengí</td>
<td>today</td>
</tr>
</tbody>
</table>

Given that we have claimed predicates in copular clauses are in AgrS, then when this elision occurs, then the predicate should remain. At least for the adjectival and prepositional predicates that appear in this construction this is true (40-41).

40) Q: An le Seán an Subaru?  A: Is leis "Yes"
   Q with J the Subaru  C AgrS
   "Does John own the Subaru?"  C with.him

41) Q An ceart mo chuimhne A: Is ceart "Yes"
   Q right my memory  C AgrS
   "Is my memory is right?"  (from Doherty 1992)

In sentences with definite NP predicates, this is also true. Recall that in the analysis sketched above, definite NP predicates do not incorporate, rather, they are the argument of an abstract COP predicate. Thus in sentences with definite NPs we expect only the pronominal agreement realization of the abstract predicate to remain (42). This predication is true.

42) Q: An é Ceannasaí an Enterprise William Riker?  Is é
    Q COP Commander the  C AgrS
    "Is William Riker the Commander of the Enterprise?"
The situation is more complex with indefinite nominal predicates (43) which we argue appear in AgrS. In these cases the predicate does not surface, but is replaced by the dummy pronominal “ea”

43)  a) An dochtúir Leonard McCoy?  b) *Is dochtúir
     Q  Doctor
     "Is Leonard McCoy a doctor?"

This is a kind of “do support”. This dummy pronominal shows up when you have an indefinite predicate. What is crucial here is that the element appearing in the Agr head is retained (via the pro-form “ea”) in responsive, supporting the analysis that these complex nominal predicates are incorporated into AgrS.

Now let us consider the status of specifiers. This issue is very difficult to test since the highest specifier never seems to be filled by anything in Irish. McCloskey (1993), however, points out that there is a set of elements that appear to be IP-initial or IP-adjoined elements. Based on scope and negative polarity items, he claims that the sentence initial adverbs in (44a) are IP adjoined (in our terms AgrS-adjoined). We refer the reader to that work for arguments in favor of this position.

40)  a) I lár an gheimhridh, an bhfaca tú do chara,   b) Ní fhaca
     in middle the winter, Q see   you your friend
In the middle of winter, did you see your friend

b) Ní fhaca
   No.

What is interesting about these cases is that in the responsive system the elements which are either in the specifier or adjoined are omitted. Again, only the C-V-AgrS head remains. If we follow Kayne (1993) in assuming that specifiers and adjuncts are the same kind of object, we have strong evidence against predicates being in a specifier position. The responsive system of Irish only repeats the AgrS head all other specifiers and adjuncts are omitted. If the predicates in Irish were in such a position we would expect them too to be omitted. This is contra to fact.

4. Conclusion

In this short paper, we have attempted to provide a non-stipulative account of complex word order facts in copular clauses in Irish. In essence, we have claimed that there are three different types of non-verbal predicates in Modern Irish, each requiring their own construction; the forms requiring verbal *d, and two forms using the complementizer is, one with an abstract COP predicate (the definite nominals) and one in which the nominal itself
acts as the predicate (the indefinite nominals). We have argued, using facts from extraction phenomena, anaphoric islands and the responsive system, that the indefinite cases constitute a set of complex nominal predicates in Irish that bear inflectional features, that incorporate into a single word, and undergo head movement to check features.

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