ON THE HIGHEST SUBJECT RESTRICTION IN MODERN IRISH

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1. Introduction

This paper examines the Highest Subject Restriction (HSR) effect in Modern Ulster Irish (Irish, hereafter), and shows that the HSR does not hold in certain syntactic configurations in Irish, which has not heretofore been reported in the literature. We suggest that the cancellation of the HSR be attributed to the addition of an extra phrase to the structure in Irish, and Chomsky’s (1991) Condition on Chain Uniformity.

The organization of this paper is as follows. Section 2 reviews the properties of complementizers in Irish as a background to the subsequent sections. Section 3 provides the HSR examples discussed in the literature. Section 4 points out problems associated with the HSR by presenting the data showing that the HSR does not hold in certain syntactic configurations. Section 5 elucidates the mechanism behind cancellation of the HSR in Irish. Finally, Section 6 concludes this paper.

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2. Background

Let us start by briefly summarizing the properties of complementizers in Irish. Irish has three types of complementizers: the \([-Q]\) marker, the direct relative marker, and the indirect relative marker. The properties of the three COMPs are summarized in (1).

(1) Complementizers in Irish

<table>
<thead>
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<th>types of COMPs</th>
<th>non-past form</th>
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<td>a. the ([-Q]) marker</td>
<td>go</td>
<td>go/gur</td>
<td>that</td>
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<tr>
<td>b. the direct relative marker</td>
<td>a</td>
<td>aL</td>
<td>aL</td>
</tr>
<tr>
<td>c. the indirect relative marker</td>
<td>a</td>
<td>a/ar</td>
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Let us illustrate the properties of the COMPs by relevant examples. (2) is a declarative sentence, and the embedded clause is headed by the \([-Q]\) COMP *gur* ‘that.’ On the other hand, when the sentence involves *wh*-interrogative clause formation, as in (3), the embedded COMP must change to the direct relative marker *aL*, and at the same time, another COMP *aL* must be inserted right after the *wh*-phrase.

(2) Creideann Seán *gur* cheannaigh Máire an carr.
believ e John that bought Mary the car
‘John believes that Mary bought the car.’

(3) Cad é a chreideann tú a cheannaigh Seán *f*?
What *aL* believe you *aL* bought John
‘What do you believe that John bought?’ (movement) (*aL, aL, t*)

There is another way to form a *wh*-interrogative clause. Observe the example in (4).

(4) Cad é a gc*reideann* tú *gur* cheannaigh Seán é/*f*?
what *aN* believe you that bought John it
‘What do you believe that John bought?’ (resumption) (*aN, that, RP*)

\(^1\) The complementizer forms used with irregular verbs in the past tense in Irish, namely, the \([-Q]\) marker and indirect relative marker *aN* do not follow the regular usage found with all other verbs. Hence, the regular complementizer forms *gur* ‘that’ and the indirect relative form *ar* are replaced by *go* ‘that’ and *a ‘aN,’ respectively when used with the following irregular verbs: *bí* ‘to be’ >> *go/a raibh*; *déan* ‘to do’ >> *go/a ndearna; faigh* ‘to get’ >> *go/a bhfuaire*; *tabhair* ‘to give’ >> *go/a dtug*; *tar* ‘to come’ >> *go/a dtáinig* and *téigh* ‘to go’ >> *go/a ndeachaigh*. 
In (4), the topmost COMP of the \( wh \)-interrogative clause is an indirect relative marker \( a \), the COMP of the embedded clause is a \([-Q]\) COMP, and the embedded clause contains a resumptive pronoun (RP) \( \dot{\varepsilon} \) ‘it’ instead of a gap. Note that (4) becomes ungrammatical, if the resumptive pronoun is replaced by a trace, which suggests that \( aN \) must bind a resumptive pronoun.

McCloskey (2002) provides an account of the distribution of the COMPs by proposing (5). 2, 3

(5) a. C whose specifier is filled by Move is realized as \( aL \).
   b. C whose specifier is filled by Merge is realized as \( aN \).
   c. C whose specifier is not filled is realized as \( go/gur \).

McCloskey assumes that the SPEC of \( aL \) contains a null operator/null pro-

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2 The first reviewer points out that Rizzi (1990) claims that the adjunct \( wh \)-phrase \( why \) in English is base-generated in CP SPEC, while Shlonsky and Soare (2011) claim that it is moved to CP SPEC, and raises the question as to what property the Irish counterpart has. McCloskey (2002) argues that the adjunct \( wh \)-phrase \( c\acute{e}n\ f\acute{a}th \) ‘why’ in Irish is inserted at the SPEC of the clause where it takes scope, and is overtly moved to the SPEC of the \([+Q]\) COMP, as shown in (i), where \( c\acute{e}n\ f\acute{a}th \) ‘why’ only modifies the embedded clause.

(i) \( c\acute{e}n\ f\acute{a}th\ a\ d\acute{u}irt\ P\acute{o}l\ a\ ra\grave{b}\h\ Se\acute{a}n\ ann? \)
   \( \text{what} \text{.the reason aL said Paul aN was John there} \)\(^ {\text{(McCloskey’s (69))}} \)
   ‘Why did Paul say that John was there?’

McCloskey (1985) provides the other type of data in which the embedded COMP is realized as \( go \) ‘that.PAST,’ as shown in (ii), where \( an\ f\acute{a}th \) ‘the reason’ only modifies the higher clause.

(ii) \( sin\ an\ f\acute{a}th\ ar\ dh\acute{u}irt\ s\acute{e}\ go\ nd\acute{e}arna\ s\acute{e}\ \dot{\varepsilon} \)
   \( \text{that the reason aN said he that.PAST did he it} \)\(^ {\text{(McCloskey’s (112a))}} \)
   ‘This is the reason why he said he did it.’

The examples in (i) and (ii) thus suggest that the adjunct \( wh \)-phrase \( c\acute{e}n\ f\acute{a}th \) ‘why’ in Irish can be base-generated in the SPEC of \([+Q]\) COMP, and can move to such a position when base-generated otherwise.

3 The first reviewer points out that Pesetsky (1987) claims that a D-linked \( wh \)-phrase binds the corresponding pronoun, while a non-D-linked \( wh \)-phrase does not, and raises the question as to whether this distinction holds in Irish. Interestingly enough, it does not hold in Irish. Thus, the examples in (3) and (4) in the text are still grammatical with \( cad\ \acute{e}\ sa\ diabhal \) ‘what in the devil (= what the hell)’ in place of \( cad\ \acute{e}\ ‘what,’ as shown in (i) and (ii).

(i) \( cad\ \acute{e}\ sa\ diabhal\ a\ ch\acute{r}\text{eideann}\ t\acute{u}\ a\ chean\text{naigh}\ Se\acute{a}n\ \dot{\varepsilon}? \)
   \( \text{what in.the devil aL believe you aL bought John} \)\(^ {\text{(movement) (aL, aL, \dot{\varepsilon})}} \)
   ‘What do you believe that John bought?’

(ii) \( cad\ \acute{e}\ sa\ diabhal\ a\ g\text{c}\acute{r}\text{eideann}\ t\acute{u}\ gur\ chean\text{naigh}\ Se\acute{a}n\ \dot{\varepsilon}/*\dot{\varepsilon}? \)
   \( \text{what in.the devil aN believe you that bought John it} \)\(^ {\text{(resumption) (aN, that, RP)}} \)
   ‘What do you believe that John bought?’

We leave the issue as to why this is so in Irish open for future research.
noun (henceforth, null operator) as a result of movement, that in the SPEC of *aN*, there is a base-generated operator, and that in the SPEC of *go/gur*, there is no operator. If this is correct, the structure of the *wh*-interrogative clause construction in Irish looks like a cleft sentence, as shown in (6).

(6) *(it is) WH₁ [Op₁ aL/aN [IP...t₁/RP₁...]]*

Note as well that in the relative clause construction, a COMP is inserted right after the head noun, as shown in (7).

(7) a. an carr a chreideann tú a cheannaigh Seán *t₁*
   the car aL believe you aL bought John
   ‘the car you believe that John bought’ (movement) (aL, aL, t₁)

b. an carr a gcreideann tú gur cheannaigh Seán *é/*t₁*
   the car aN believe you that bought John it
   ‘the car you believe that John bought’
   (resumption) (aN, that, RP)

(6) is thus generalized to (8).

(8) *(it is) NP₁/WH₁ [Op₁ aL/aN [IP...t₁/RP₁...]]*

3. The Highest Subject Restriction (HSR) in Irish: the (Apparent) Facts

McCloskey (1979, 1990) argues for the Highest Subject Restriction (HSR) on the distribution of resumptive pronouns based on languages such as Irish, Hebrew, and Palestinian Arabic, which is roughly stated in (9).

(9) *The Highest Subject Restriction (HSR)* (McCloskey (2002: 201) with slight editing)

In languages which have a fully grammaticized resumptive strategy, the only position from which resumptive pronouns are excluded is the highest subject position within the relative clause.

See Hayon (1973) and Borer (1984), among others, for Hebrew data, and Shlonsky (1992), among others, for Palestinian Arabic data.

The HSR applies to resumptive pronouns in both relative clauses and *wh*-interrogative clauses in Irish. The relevant examples are shown below. The examples in (10)–(13) involve object extraction/resumption, and they are all grammatical.

(10) a. an leabhar₁ a léigh Seán *t₁*
    the book aL read John
    ‘the book that John read’
   (movement)

b. an leabhar₁ ar léigh Seán *é₁*
    the book aN read John it
    ‘the book that John read’
    (resumption)
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(11) a. Cad é a léigh Seán $t_1$?
    what aL read John
    ‘What did John read?’
    (movement)

    b. Cad é ar léigh Seán $é_1$?
    what aN read John it
    ‘What did John read?’
    (resumption)

(12) a. an leabhar$_1$ a chreideann tú a cheannaigh Seán $t_1$
    the book aL believe you aL bought John
    ‘the book you believe that John bought?’
    (movement) (aL, aL, t)

    b. an leabhar$_1$ a gcreideann tú gur cheannaigh Seán $é_1$
    the book aN believe you that bought John it
    ‘the book you believe that John bought?’
    (resumption) (aN, that, RP)

(13) a. Cad é a chreideann tú a cheannaigh Seán $t_1$?
    what aL believe you aL bought John
    ‘What do you believe that John bought?’
    (movement) (aL, aL, t)

    b. Cad é a gcreideann tú gur cheannaigh Seán $é_1$?
    what aN believe you that bought John it
    ‘What do you believe that John bought?’
    (resumption) (aN, that, RP)

However, according to McCloskey (1979, 1990), the relative clause construction does not allow the resumption strategy for the highest subject, while it allows the movement strategy for it, as shown in (14) and (15). In (14b), the resumptive pronoun is in the highest subject position.

(14) a. an fear$_1$ a bhi $t_1$ breoite
    the man aL was ill
    ‘the man who was ill’
    (movement)

    b. *an fear$_1$ a raibh sé$_1$ breoite
    the man aN was he ill
    ‘the man who was ill’
    (resumption)

(15) a. an fear$_1$ a shíl mé a bhi $t_1$ breoite
    the man aL thought I aL was ill
    ‘the man who I thought (he) was ill’
    (movement)

    b. an fear$_1$ ar shíl mé go raibh sé$_1$ breoite
    the man aN thought I that was he ill
    ‘the man who I thought (he) was ill’
    (resumption)

The same pattern is observed with the *wh*-interrogative construction, as
shown in (16) and (17). In (16b), the resumptive pronoun is in the highest subject position.

(16) a. Cé₁ a léigh t₁ an leabhar seo?  
   who aL read the book this  
   ‘Who read this book?’  
   (movement)  
   b. *Cé₁ ar léigh sé₁ an leabhar seo?  
   who aN read he the book this  
   ‘Who read this book?’  
   (resumption)

(17) a. Cé₁ a shíl tú a bhí t₁ breoite?  
   who aL thought you aL was ill  
   ‘Who did you think that (he) was ill?’  
   (movement) (aL, aL, t)  
   b. Cé₁ ar shíl tú go raibh sé₁ breoite?  
   who aN thought you that was he ill  
   ‘Who did you think that (he) was ill?’  
   (resumption) (aN, go, RP)

McCloskey (1990) also points out that there are cases where the resumptive pronoun which is not apparently in the highest subject position is excluded, based on examples such as (18). (Note that we disagree about the judgment of (18), which we claim to be grammatical, as discussed in the next section.)

(18) *an fear ar shíl mé a raibh sé breoite  
   the man aN thought I aN was he ill  
   ‘the man who I thought (he) was ill’  
   (resumption) (aN, aN, RP)  
   (McCloskey (1990: 219), our bold on sé)

This is because in (18), the second COMP a ‘aN’ has a base-generated null operator in its SPEC, so that the resumptive pronoun in the subject position sé ‘he’ counts as the highest subject, as it is locally bound by the operator, as (19) shows.

(19) the man₁ [CP Op₁ aN [IP…[CP Op₁ aN [IP…RP₁…]]]]

Thus, the above examples all show that the HSR is one of the salient properties of Irish, according to McCloskey.

4. Problems of the HSR

Our careful examination of the HSR effect in Irish shows that contrary to what McCloskey (1979, 1990) argues, (A) the examples with the HSR effect become grammatical with an extra phrase attached to them to make them sound real and factual, and (B) some of the examples of the HSR, which
are considered ungrammatical, are actually grammatical, as they are.

Let us start with Case (A). The examples in (14b) and (16b), which have a simple structure, are ungrammatical, according to McCloskey (1979, 1990). However, the same structure is perfectly grammatical with an additional phrase, as shown in (20). The examples in the rest of the paper are all taken from our own fieldwork unless notified otherwise.

(20) Tá an fear a raibh sé breoite más fíor anseo anois.

is the man aN was he ill if+Cop true here now

‘The man who was ill supposedly is here now.’

(21) shows the same point with a wh-interrogative sentence.

(21) Cé ar léigh sé an leabhar seo más fíor di?

who aN read he the book this if+Cop true to.her

‘Who read this book, according to her/what she says?’

A simple sentence with an intransitive verb is ungrammatical in the HSR structure, as shown in (22). However, (22) becomes grammatical with an additional phrase, as shown in (23).

(22) *Cé ar imigh sé?

who aN left he

‘Who left?’

(23) Cé ar imigh sé go hádhúil /is léir /is dócha /inné

who aN left he fortunately /evidently /probably /yesterday

/thri lá ó shin/ in am /le Máire?

/three days ago/ in time /with Mary

‘Who left fortunately/evidently/probably/yesterday/three days ago/on time/with Mary?’

According to Cinque (1999), the first three adverbs in (23) go hádhúil ‘fortunately’/is léir ‘evidently’/is dócha ‘probably’ are high adverbs, and in the projections of Mood evaluative, Mood evidential, and Mood epistemic, respectively. Therefore, (23) shows that an adverb, whether it is high enough or not, may cancel the HSR. See Endo (2007: 5) for a precise summary of the adverb hierarchy proposed in Cinque (1999).

A simple sentence with a transitive verb is also ungrammatical in the HSR structure, as shown in (24). This indicates that a subcategorized object cannot cancel the HSR. However, again, (24) becomes grammatical with an additional phrase, as shown in (25).

(24) *Cé a bhfaca sé an bhean?

who aN saw he the woman

‘Who saw the woman?’
Finally, the examples in (26) and (27) show that the HSR is cancelled not only by an adverb, but also by a coordinate clause.

(26) *Cé a raibh sé breoite?
who aN was he ill
‘Who was ill?’

(27) Cé a raibh sé breoite agus ag fáil bháis?
who aN was he ill and at getting death
‘Who was ill and dying?’

Let us now return to Case (B). The example in (18), which McCloskey (1990) judges ungrammatical because 'he' is locally bound by the null operator in the SPEC of aN, is actually perfectly grammatical as it is. The examples in (28a, b), whose basic structure is identical to that of (18), are also grammatical.

(28) a. an fear a dúirt Seán a dtáinig sé
the man aN said John aN came he
‘the man who John said came’ (aN, aN, RP)

b. an fear a dúirt Seán a dtáinig sé
the man aL said John aN came he
‘the man who John said came’ (aL, aN, RP)

The examples in (29a, b) illustrate the same point with the wh-interrogative construction.

(29) a. Cé ar shíl tú ar léigh sé an leabhar seo?
who aN thought you aN read he the book this
‘Who did you think read this book?’ (aN, aN, RP)

b. Cé a shíl tú ar léigh sé an leabhar seo?
who aL thought you aN read he the book this
‘Who did you think read this book?’ (aL, aN, RP)

The above examples clearly show that contrary to what McCloskey (1979, 1990) claims, (A) the examples with the HSR effect become grammatical with an extra phrase attached to them to make them sound real and factual, and (B) some of the examples of the HSR which are considered ungrammatical are actually grammatical, as they are.

5. Elucidation of the Mechanism of Cancellation of the HSR

The data in the above section suggest that there are two ways to cancel
the HSR in Irish: (A) adding an extra phrase to the HSR structure, and (B) a base-generated operator (resumption operator) in the non-initial position of the chain. In this section, we will consider what these actually indicate.

Let us start with Case (B). If McCloskey (2002) is correct, the relevant structure in Case (B) is the one in (30), where Op in bold is a base-generated operator binding the highest subject resumptive pronoun.

\[(30) \text{the man}_1/\text{who}_1 [\text{CP Op}_1 \text{aN [IP \ldots [CP Op}_1 \text{aN [IP \ldots RP}_1\ldots]]}]\]

McCloskey (1990) claims that the operator in bold binds the highest subject resumptive pronoun, which leads to the ungrammaticality of the structure in (30).

However, if Chomsky’s (1991) Condition on Chain Uniformity, part of which is shown in (31), is correct, the base-generated operator in bold should not exist in that position at LF.

\[(31) \text{Condition on Chain Uniformity (Chomsky (1991))} \]

What counts as a proper element at the LF level is a chain in (i):

(i) \((\alpha_n, \ldots, \alpha_1)\)

(ii) is a permitted LF object:

(ii) Operator-variable constructions, each a chain \((\alpha_1, \alpha_2)\), where the operator \(\alpha_1\) is in an A’-position and the variable \(\alpha_2\) is in an A-position.

In (30), the highest Op and the resumptive pronoun should constitute an operator-variable chain at LF, so that the intermediate operator should not be able to exist at LF by (31ii). Then, at LF, (30) looks like (32).

\[(32) \text{the man}_1/\text{who}_1 [\text{CP Op}_1 \text{aN [IP \ldots [CP aN [IP \ldots RP}_1\ldots]]}]\]

Then, in (32), the subject resumptive pronoun is not the highest subject bound by the operator in the structure. Therefore, the HSR effect is cancelled in Case (B), as long as Chomsky (1991) is correct.

Let us then turn to Case (A). In configurations with a highest subject, the HSR is not cancelled in the structures in (33a, b), but is in the structures in (33c, d).

\[(33) \]

a. \(*\text{NP}_1/\text{WH}_1 [\text{CP Op}_1 \text{aN [IP [vP sê}_1]]]\)

b. \(*\text{NP}_1/\text{WH}_1 [\text{CP Op}_1 \text{aN [IP [vP sê}_1 \text{NP}_{OBS}]]]\)

c. \text{NP}_1/\text{WH}_1 [\text{CP Op}_1 \text{aN [IP [vP sê}_1 ...ADV]]]

d. \text{NP}_1/\text{WH}_1 [\text{CP Op}_1 \text{aN [IP [vP sê}_1 [vP ...] & [vP ...]]]}

For the sake of discussion, we assume that the subject and the object stay within vP in Irish, following Maki and Ó Baoill (2011: Ch. 1), which does not affect the main argument in the following discussion.

(33a) indicates that without an additional phrase, the HSR is not cancelled. (33b, c) show that the additional phrase that saves the highest
subject is not an argument subcategorized by the verb, but an adverb, irrespective of whether it is a high adverb or not. Finally, (33d) indicates that as well as adverbs, a coordinate clause can save the highest subject. Therefore, the generalization behind Case (A) is something like (34).

(34) The highest subject is saved by an adverb or a coordinate structure.

At first sight, (34) does not seem to be a true generalization behind Case (A), and the question arises as to what properties an adverb and a coordinate structure share. In the following discussion, we will revise (34), following Higginbotham’s (1985) idea that adjuncts involve coordination.

Following Davidsonian event semantics, Higginbotham (1985) claims that the example in (35) is given the semantic representation in (36).

(35) John walks slowly.

(36) \( \exists e \left[ \text{Walk (John, } e \text{)} \& \text{Slow (} e \text{)} \right] \)

(36) indicates that there is an event such that it is a walking by John and it is slow (for walking by John). If this is true, the structure with an adverb in (33c) has a coordinate structure in its semantic representation, just like the structure with a coordinate clause in (33d). Then, (34) is further generalized to (37), and one may say that the HSR is cancelled by the addition of a coordinate clause to the HSR structure.

(37) The highest subject is saved by a coordinate structure.

On the other hand, the structures in (33a, b) do not have such a structure. Therefore, the highest subject is not saved in these configurations.

Of course, the issue still remains as to why the addition of a coordinate clause to the HSR structure can save the highest subject. We will leave this difficult and important issue for future research.

6. Conclusion

In this paper, we examined the HSR effect in Irish, and showed that the HSR is cancelled when (A) an extra phrase is added to the HSR structure, or (B) a base-generated operator (resumption operator) is in the non-initial position of the chain. We then suggested that Case (A) was due to the addition of a coordinate clause to the HSR structure in Irish, and argued that Case (B) was a consequence of Chomsky’s (1991) Condition on Chain Uniformity. If this analysis is correct, deletion of unnecessary objects does take place at LF, which provides a piece of evidence for Chomsky’s (1991) essential idea about chains.
REFERENCES


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