Portmanteaux and Locality in the Irish Verbal Complex

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Jan. 7th, 2016, in Washington DC, which is colder than Santa Cruz

• So today we’ll be talking about portmanteaux in the Irish verbal complex.
• What’s a portmanteau?

(1) **Portmanteau**: (a morph) which belong(s) simultaneously to two (or theoretically, more) morphemes, and have simultaneously the meanings of both.

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Hockett 1947, pg. 236

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• So portmanteaux are:
  - Indivisible linguistic ‘chunks’
  - Corresponds to multiple other ‘chunks’
  - If no portmanteau, we should get the other ‘chunks’
  - French au [o] = à [a] + le [la]

(2) **What local relation must two node be in in order to be able to form a portmanteau?**

• By examining the Irish verbal complex, I hope to convince you of the following things:
  1. Linearization occurs before Vocabulary Insertion (Adger 2006; Embick 2010; Arregi and Nevins 2012; Haugen and Siddiqi 2013)
  2. In the case of portmanteaux, Vocabulary Insertion targets linearly adjacent nodes, not hierarchically adjacent nodes (Bobaljik 2012)
  3. In order for two nodes to form a portmanteau, they must be in the same Extended Projection (Grimshaw, 2000, 2005; Williams, 2003; Bye and Svenonius, 2010; Svenonius, 2012; Merchant, 2015)

(3) If an exponent X expresses $\sqrt{\text{ROOT}} + F_1 \ldots F_n$, for some features $F_1 \ldots F_n$, then $F_1 \ldots$ must be adjacent to (contiguous with) $\sqrt{\text{ROOT}}_1$.

"The empirical content of this prediction¹ is that, all else being equal, if there are portmanteaus expressing $\sqrt{\text{ROOT}} + F_1$ in some language, then for any nonportmanteau root $\sqrt{\text{ROOT}}_2, \sqrt{\text{ROOT}}_2$ and $F_1$ will be adjacent (and where the portmanteau includes a group of features, these will be contiguous with the root)."  

Bobaljik (2012), pg. 149

The argument is organized as follows.

• §1 presents the data, which come from the Irish verbal complex.
• §2 introduces Spanning, and the predictions that the theories put forward in Svenonius (2012) and Merchant (2015).
• §3 tests these predictions against Irish. We’ll see that they don’t pan out.
• §4 reframes the problem, and proposes the solution discussed here.
• §5 concludes.

¹Thanks are due, first and foremost, to the native Irish speakers, and my dear friends, who helped me along the way, chief among them Ailbhe Nic Giolla Chomhaill, Lee Vahey, and Conal McShane. Ailbhe deserves further thanks for editing early versions of this handout. Any errors are, of course, my own. On the theoretical end, many thanks are due to Jim McCloskey, Sandy Chung, Armin Mester, Jason Merchant, Ryan Bennett, and the audiences at the ICCS XV, AIME.

¹Bobaljik rightly attributes this prediction to Radkevich (2010). It is also worth noting that her objections to Williams (2003) and Caha (2009) are, probably, also applicable here. But her objections rely solely on negative evidence; hopefully, the data presented here render such concerns unnecessary.
1 A Crash Course in Irish Verbal Morphology

1.1 The Absolute Basics

Finite verb = √root + T².

(4) a. rith -eann
   run - PREs
   ‘runs’

b. cuir -fídh
   put - FUT
   ‘will put’

v = -igh [i]

(5) a. Ceann -áigh!
   buy - v
   ‘Buy!’

b. ceann -aí -onn
   buy - v - PREs
   ‘buys’

This leads us to the morphological decomposition in (6)³.

(6) T
    
    v
    √root
    T

    ceann-
    -aí-

    -onn

1.2 More on Tense Marking

- Most basic way: Analytic forms
  - Only mark T.
  - No information about ϕ-features of subject.
  - Can occur with pronominal subjects, full DP subjects, or when no subject is present.

(7) Irish Tense/Mood Marking

<table>
<thead>
<tr>
<th>TENSE/MOOD</th>
<th>SUFFIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>-(e)ann</td>
</tr>
<tr>
<td></td>
<td>[øn]</td>
</tr>
<tr>
<td>Past</td>
<td>-∅</td>
</tr>
<tr>
<td>Future</td>
<td>-f(a)idh</td>
</tr>
<tr>
<td></td>
<td>[i]</td>
</tr>
<tr>
<td>Conditional</td>
<td>-fadh</td>
</tr>
<tr>
<td></td>
<td>[øx] or [u]</td>
</tr>
<tr>
<td>Past Habitual</td>
<td>-adh</td>
</tr>
<tr>
<td></td>
<td>[øx] or [u]</td>
</tr>
</tbody>
</table>

²Throughout this handout, for those not familiar with and perhaps intimidated by Irish orthography, complementizers are in blue and finite verbs are in red.
³See also McCloskey (1996) for the argument that verbs in Irish raise to T.
• More complicated way to mark T: **Synthetic forms** (see McCloskey and Hale 1984; Legate 1999; Brennan 2009; Diertani 2011)
  - Portmanteaux of T and subject $\phi$-features.
  - ONLY occur with pronominal subjects.
  - If a synthetic form is possible, the expected T + Pronoun is blocked.

• Dialects vary greatly in the number of synthetic forms they have.

(8) **Ulster conjugation**

<table>
<thead>
<tr>
<th></th>
<th>Pres</th>
<th>Fut</th>
<th>Past</th>
<th>Past Hab.</th>
<th>Cond</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>cuir-$\text{im}$</td>
<td>cuir-$\text{idh , m\acute{e}}$</td>
<td>cuir-$\emptyset$ $\text{m\acute{e}}$</td>
<td>cuir-$\text{inn}$</td>
<td>cuir-$\text{finn}$</td>
</tr>
<tr>
<td>2s</td>
<td>cuir-$\text{eann}$ $\text{t}\ddot{\text{u}}$</td>
<td>cuir-$\text{idh}$ $\text{t}\ddot{\text{u}}$</td>
<td>cuir-$\emptyset$ $\text{t}\ddot{\text{u}}$</td>
<td>cuir-$\text{te\ddot{a}}$</td>
<td>cuir-$\text{fe\ddot{a}}$</td>
</tr>
<tr>
<td>3s</td>
<td>cuir-$\text{eann}$ $\text{se},\text{si}$</td>
<td>cuir-$\text{idh}$ $\text{se},\text{si}$</td>
<td>cuir-$\emptyset$ $\text{se},\text{si}$</td>
<td>cuir-$\text{eadh}$ $\text{se},\text{si}$</td>
<td>cuir-$\text{feadh}$ $\text{se},\text{si}$</td>
</tr>
<tr>
<td>1pl</td>
<td>cuir-$\text{eann}$ $\text{muid}$</td>
<td>cuir-$\text{idh}$ $\text{muid}$</td>
<td>cuir-$\emptyset$ $\text{muid}$</td>
<td>cuir-$\text{imi}$</td>
<td>cuir-$\text{fimis}$</td>
</tr>
<tr>
<td>2pl</td>
<td>cuir-$\text{eann}$ $\text{sbh}$</td>
<td>cuir-$\text{idh}$ $\text{sbh}$</td>
<td>cuir-$\emptyset$ $\text{sbh}$</td>
<td>cuir-$\text{eadh}$ $\text{sbh}$</td>
<td>cuir-$\text{feadh}$ $\text{sbh}$</td>
</tr>
<tr>
<td>3pl</td>
<td>cuir-$\text{eann}$ $\text{siad}$</td>
<td>cuir-$\text{idh}$ $\text{siad}$</td>
<td>cuir-$\emptyset$ $\text{siad}$</td>
<td>cuir-$\text{eadh}$ $\text{siad}$</td>
<td>cuir-$\text{feadh}$ $\text{siad}$</td>
</tr>
</tbody>
</table>

(9) **Munster conjugation**

<table>
<thead>
<tr>
<th></th>
<th>Pres</th>
<th>Fut</th>
<th>Past</th>
<th>Past Hab.</th>
<th>Cond</th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>cuir-$\text{im}$</td>
<td>cuir-$\text{idh}$</td>
<td>cuir-$\text{eas}$</td>
<td>cuir-$\text{inn}$</td>
<td>cuir-$\text{finn}$</td>
</tr>
<tr>
<td>2s</td>
<td>cuir-$\text{ir}$</td>
<td>cuir-$\text{idh}$</td>
<td>cuir-$\text{is}$</td>
<td>cuir-$\text{te\ddot{a}}$</td>
<td>cuir-$\text{fe\ddot{a}}$</td>
</tr>
<tr>
<td>3s</td>
<td>cuir-$\text{eann}$ $\text{se},\text{si}$</td>
<td>cuir-$\text{idh}$ $\text{se},\text{si}$</td>
<td>cuir-$\emptyset$ $\text{se},\text{si}$</td>
<td>cuir-$\text{eadh}$ $\text{se},\text{si}$</td>
<td>cuir-$\text{feadh}$ $\text{se},\text{si}$</td>
</tr>
<tr>
<td>1pl</td>
<td>cuir-$\text{imid}$</td>
<td>cuir-$\text{idh}$</td>
<td>cuir-$\text{eamar}$</td>
<td>cuir-$\text{imi}$</td>
<td>cuir-$\text{fimis}$</td>
</tr>
<tr>
<td>2pl</td>
<td>cuir-$\text{eann}$ $\text{sbh}$</td>
<td>cuir-$\text{idh}$ $\text{sbh}$</td>
<td>cuir-$\text{eabh}$</td>
<td>cuir-$\text{eadh}$ $\text{sbh}$</td>
<td>cuir-$\text{feadh}$ $\text{sbh}$</td>
</tr>
<tr>
<td>3pl</td>
<td>cuir-$\text{id}$</td>
<td>cuir-$\text{idh}$</td>
<td>cuir-$\text{eadar}$</td>
<td>cuir-$\text{idis}$</td>
<td>cuir-$\text{fidis}$</td>
</tr>
</tbody>
</table>

**Synthetic and analytic endings expone T!**

### 1.2.1 Double Marking T

• Past-tense is doubly marked.

• After some C’s, -r

(10) **Adapted from McCloskey and Hale (1984)**

a. *Ni -or cuir -eadar isteach ar an phost.*
   NEG -r put.PAST -PAST.3PL in on the job
   ‘They did not apply for the job.’

b. *... gu -r mhol -amar é.*
   C -r propose.PAST -PAST.1PL
   ‘... that we proposed it.’

• Tense is doubly marked because T is realized both in the synthetic form and by -r.

• -r only occurs in the past.

(11) a. *Ni -or c(h?)uir -fead isteach ar an phost.*
   NEG -r put -1SG.FUT in on the job
   Intended: ‘I won’t apply for the job.’

b. *Ni -or c(h?)uir -im isteach ar phoist.*
   NEG -r put -1SG.PRES in on jobs
   Intended: ‘I don’t apply for jobs.’
• Lots of people have thought about -r in lots of different ways (Chung and McCloskey, 1987; Rizzi, 1997; Oda, 2012; McCloskey et al., 2014).

• Here I’ll follow McCloskey et al. (2014) and treat it as realizing a separate head, T_{high} in the syntax (Stowell, 2007), though nothing seems to hinge on this.

(12) **The Structure Thus Far**

```
T_{high}    T_{low}
  |      |
  -r     vP
T_{low}    Analytic/Synthetic Endings
```

1.3 Last Piece: C

• C’s are a part of the Irish verbal complex (McCloskey, 1996).

(13) go im -i -odar
    c  buy -v -pres
    ‘. . . that buys . . . ’

**The Irish Verbal Complex:** C (T_{high}) \( \sqrt{\text{ROOT}} (v) \) T_{low}

• C’s count because:
  - They form a single prosodic word (Elfner, 2012).
  - Nothing may intervene between the pieces.

(14) **All the Things Analyzed as C in Irish** (McCloskey, 1978)

<table>
<thead>
<tr>
<th>Complementizer</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>( ni ) Root Negation</td>
</tr>
<tr>
<td>b.</td>
<td>( an ) Interrogative Marker</td>
</tr>
<tr>
<td>c.</td>
<td>( go ) Embedded Declarative Complementizer</td>
</tr>
<tr>
<td>d.</td>
<td>( nach ) Embedded Negative Complementizer</td>
</tr>
<tr>
<td>e.</td>
<td>( a^{2} ) Direct Relative Marker</td>
</tr>
<tr>
<td>f.</td>
<td>( da ) Irrealis Conditional Marker</td>
</tr>
<tr>
<td>g.</td>
<td>( a^{\omega} ) Indirect Relative Marker</td>
</tr>
<tr>
<td>h.</td>
<td>( ma ) Realis Conditional Marker</td>
</tr>
</tbody>
</table>

As can be seen in (14), complementizers in Irish carry out a wide range of functions\(^4\):

• Negation (14a and 14d)

• Question marker (14b)

• Conditional markers (14g and 14h)

• Finite Embedded Complementizers (14c)

\(^4\)This wide range of functions may make it tempting to appeal to a nanosyntactic or Cartographic decomposition of the left periphery in Irish. This is not pursued here, thought see Roberts 2005.
Relativizers (14e and 14f)

We can be reasonably certain that all of these are best treated as C’s (i.e., on par with English ‘that’) from much work of McCloskey’s (McCloskey, 1978, 1996, 2002)

1.3.1 Triggering and Non-triggering C’s

Irish complementizers need to be divided into two groups: triggering C’s and non-triggering C’s.

<table>
<thead>
<tr>
<th>Non-Triggering</th>
<th>Triggering</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp;\left[&amp;\alpha&amp;\right]</td>
<td>a\left[\alpha&amp;\right]</td>
</tr>
<tr>
<td>Direct Relativizer</td>
<td>Indirect Relativizer</td>
</tr>
<tr>
<td>m\acute{a}</td>
<td>d\acute{a}</td>
</tr>
<tr>
<td>Realis Conditional</td>
<td>Irrealis Conditional</td>
</tr>
<tr>
<td>ni</td>
<td>n\acute{i}</td>
</tr>
<tr>
<td>Root Negation</td>
<td>Root Negation</td>
</tr>
<tr>
<td>nach</td>
<td>n\acute{a}x</td>
</tr>
<tr>
<td>Embedded Negation</td>
<td>Embedded Negation</td>
</tr>
<tr>
<td>an</td>
<td>a(n)</td>
</tr>
<tr>
<td>Interrogative Marker</td>
<td>Interrogative Marker</td>
</tr>
</tbody>
</table>

Class membership seems to be idiosyncratic.

- No unifying phonology
- No unifying morphosyntax

So how do we tell them apart?

1.3.2 Only Triggering C’s Occur with -r

16. a. N\acute{i} \text{ (-or) chuir} -eas isteach ar an phost.
    NEG -R put -1SG.PAST in on the job
    ‘I didn’t apply for the job.’

   b. (rud) a\acute{\alpha}_\text{at} \text{ (-or) chuir} -eas ’sa chuisneoir
      thing a\acute{\alpha} -R put -1SG.PAST in the refrigerator
      ‘a thing that I put in the refrigerator’

1.3.3 Only Triggering C’s Cause the Dependent/Independent Alternation

17. \textbf{Dependent/Independent Alternation:} A typologically rare pattern of verbal suppletion which is triggered by triggering complementizers.

This suppletive form is thought of as ‘dependent’ on the preceding complementizer.

Triggering complementizers trigger the dependent allomorph.

\footnote{The relativizers are the only ones to be marked here with superscripts indicating the initial mutations they cause so that readers familiar with them from work like McCloskey (2002) can more easily recognize them. The initial mutations do not figure into the phenomenon we are interested in here, and are therefore not marked otherwise.}
(18) The Independent/Dependent Alternation in Modern Irish

<table>
<thead>
<tr>
<th>Citation Form</th>
<th>Past Tense Alternations</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. bí ‘be’</td>
<td>bhi</td>
<td>raibh</td>
</tr>
<tr>
<td>[bi:]</td>
<td>[vi:]</td>
<td>[rɛv] or [ro]</td>
</tr>
<tr>
<td>b. dean ‘do’</td>
<td>rinne</td>
<td>dearna</td>
</tr>
<tr>
<td>[dɛn]</td>
<td>[rɛnɔ]</td>
<td>[dʒar.nɔ]</td>
</tr>
<tr>
<td>c. feic ‘see’</td>
<td>chonáic</td>
<td>faca</td>
</tr>
<tr>
<td>[fɛn̪]</td>
<td>[xo.nik̪]</td>
<td>[fa.ko]</td>
</tr>
<tr>
<td>d. teigh ‘go’</td>
<td>chuaigh</td>
<td>deacháigh</td>
</tr>
<tr>
<td>[tʃi̞]</td>
<td>[ʃu.i]</td>
<td>[dʒa.xi]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Citation Form</th>
<th>Future Tense Alternations</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. faigh ‘get’</td>
<td>gheobhaidh</td>
<td>bhfaighidh</td>
</tr>
<tr>
<td>[fai̞]</td>
<td>[jɔ.i]</td>
<td>[wɛ.i]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Citation Form</th>
<th>Present Tense Alternations</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>f. bí ‘to be’</td>
<td>tá</td>
<td>fiul</td>
</tr>
<tr>
<td>[bi:]</td>
<td>[ta:]</td>
<td>[fwi̞]</td>
</tr>
</tbody>
</table>

(19) With Triggering C
a. AnT raibh tú tinn?
   Q was.DEP you sick
   ‘Were you sick?’
b. *AnT bhi tú tinn?
   Q was.INDEP you sick
   Intended: ‘Were you sick?’

(20) Without Triggering C
a. Bhi mé tinn.
   was.INDEP I sick
   ‘I was sick.’
   was.DEP I sick
   Intended: ‘I was sick.’

(21) With Non-Triggering C
a. MáNT bhi tú ...
   if.REAL was.INDEP you
   ‘If you were…’
b. *MáNT raibh tú ...
   if.REAL was.DEP you
   Intended: ‘If you were…’

(22) | Triggering Complementizers (C+?) | Non-Triggering Complementizers (C) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent or Independent?</td>
<td></td>
</tr>
<tr>
<td>-r?</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note that dialects differ in terms of exactly which verbs undergo the dependent/independent alternation; some have fewer (Munster), while some have more (Ulster). But every dialect has verbs which undergo it, and in every dialect the pattern discussed here is true.
1.3.4 -r and Dependent Forms

- and dependent forms are in complementary distribution!

(23) Normal Verb with Triggering C

a. \( A\) -r *chuir* tú an film nua Spiderman in eager?
    q -r put.past you the movie new S. in order
    ‘Did you edit the new Spiderman movie?’

b. *\( An\) gcuir* tú an film nua Spiderman in eager?
    q put.past you the movie in order
    Intended: ‘Did you edit the movie?’

(24) Dependent/Independent Verb with Triggering C

a. An bhfac\(a\) tú an film nua Spiderman?
   q see.past.dep you the movie new S.
   ‘Did you see the new Spiderman movie?’

b. *An chonaic* tú an film nua Spiderman?
   q see.past.indep you the movie new S.
   Intended: ‘Did you see the new Spiderman movie?’

c. *\( A\) bhfac\(a\)* tú an film nua Spiderman?
   q -r see.past.dep you the movie new S.
   Intended: ‘Did you see the new Spiderman movie?’

d. *\( A\) chonaic* tú an film nua Spiderman?
   q -r see.past.indep you the movie new S.
   Intended: ‘Did you see the new Spiderman movie?’

1.4 Wrapping it Up + Some Syntactic Assumptions

- Finite verbs undergo head-movement to a position Pol(arity), which is between our two T heads (McCloskey, 2009; Elfner, 2011; McCloskey et al., 2014).

  - We won’t worry about Pol because it’s always silent.

- C-Lowering (McCloskey, 1996; Harley and Noyer, 1999; Oda, 2012; Ostrove, 2015a)

  - Lowering (Embick and Noyer, 2001) of C to the finite verb.

  - Since \( T_{\text{HIGH}} \) is in the way, successive Lowering.

    - C↓\( T_{\text{HIGH}} \)
    - C+\( T_{\text{HIGH}} \)↓ Pol

- Put it all together. . .
(25) \[ \text{Ni} \text{-or im-i-adar} \]
\[ \text{NEG-r leave-v-3PL.PAST} \]
\[ \text{‘They didn’t leave.’} \]

(26)

\[
\begin{array}{c}
\text{CP} \\
\text{TP} \\
\text{PolP} \\
\text{Pol} \\
\text{T}_{\text{HIGH}} \\
\text{C} \\
\text{ni} \\
\text{\( \sqrt{\text{ROOT}} \)} \\
\text{v} \\
\text{imir} \\
\text{\( \sqrt{\text{ROOT}} \)} \\
\text{v} \\
\text{adar} \\
\text{T}_{\text{LOW}} \\
\text{Pol} \\
\text{T}_{\text{LOW}} \\
\text{Pol} \\
\text{(Pol)} \\
\end{array}
\]

TAKING STOCK:

- Irish verbal complex consist of C \( T_{\text{HIGH}} \) \( \sqrt{\text{ROOT}} \) \( v \) \( T_{\text{LOW}} \)
- Two ways of marking \( T_{\text{LOW}} \):
  - Analytic forms
    - Just tense information
  - Synthetic forms
    - Portmanteaux: T + \( \phi \)
- Sometimes T is double marked: -r
- Two kinds of complementers:
  - Triggering: -r and dependent forms
  - Non-triggering: No -r, no dependent forms

2 How Do We Analyze the Dependent/Independent Alternation? Portmanteaux!

[DEPENDENT FORMS ARE PORTMANTEAUX (ODA, 2012)]

- Core idea (Oda, 2012)\(^7\):
  - “The intuition is that...a dependent form ‘eats up’ all the tense features available to be spelled out...” (Oda, 2012).
- In our system:
  - Dependent form = Verb + \( T_{\text{HIGH}} \)

(27) a. \( <\sqrt{\text{PUT}} + v \ldots> \Leftrightarrow cuir \)
   \( \text{Normal Verb} \)

b. \( <\sqrt{\text{SEE}} + v \ldots T_{\text{HIGH}}:\text{PAST}> \Leftrightarrow faca / C_{T} \)
   \( \text{Dependent/Independent Verb} \)

c. \( <T_{\text{HIGH}}:\text{PAST}> \Leftrightarrow -r / C_{T} \)

- This straightforwardly derives the complementarity between -r and dependent forms (§1.3.4)

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\(^7\)For a rather unsuccessful attempt at analyzing the complementary distribution without using portmanteau technology, see Ostrove (2015b).
2.1 How Should We Do This Formally? Spanning?

- To my knowledge, the theory on the market which has the best chance of accounting for these data is Spanning (Williams, 2003; Caha, 2009; Bye and Svenonius, 2012; Svenonius, 2012; Merchant, 2015; Merchant and Pavlou, To Appear)

- Core idea behind Spanning:
  - VI does not just target terminal nodes.
  - It can target contiguous spans of Extended Projections.
  - Where contiguous is defined in terms of selection.

(28) “Let T be an ordered n-tuple of terminal nodes <t1, ..., tn> such that for all t∈T, t=t1 or t is an element of the extended projection of t1.

a. For all k = 1...n, tk is a span. (Every node is a trivial span.)
b. For any n>0, if tk is a span, then <tk, ..., tk+n> is a span.” Svenonius (2012); Merchant (2015)

(29)

(30) Every Possible Span in the Irish Verbal Complex

- Every terminal node is a span, albeit a trivial one.
- Spans can happen anywhere in the Extended Projection; they don’t need to include the Root (Merchant, 2015)

(31) Span Adjacency Hypothesis: Allomorphy is conditioned only by an adjacent span (Merchant, 2015).

Recall the basic fact of the dependent/independent alternation: C triggers allomorphy on the verb.

   get.FUT.INDEP I car new
   ‘I’ll get a new car.’
b. \( \text{Ní bhfaighidh m'é carr nua} \)  
   neg get.fut.dep I car new  
   "I won't get a new car."

- Keep an eye on the Extended Projection in (29):
- By the Span Adjacency Hypothesis (32), if C is triggering allomorphy on the root, then all the nodes in between C and the root must be included in the root span, i.e., the dependent form.
- This means we must write VEs for dependent forms as in (33).

\[
< \sqrt{\text{GET}} + v + T_{low}:\text{FUT} + \text{Pol} + T_{high}:\text{FUT} > \leftrightarrow \text{bhfaighidh} / C_T \]

The Span Adjacency Hypothesis correctly predicts the complementarity between dependent forms and \(-r\).

(33)

\[
< \sqrt{\text{GET}} + v + T_{low}:\text{FUT} + \text{Pol} + T_{high}:\text{FUT} > \leftrightarrow \text{bhfaighidh} / C_T \]

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The Span Adjacency Hypothesis correctly predicts the complementarity between dependent forms and \(-r\).

(35)

\[
< \sqrt{\text{GET}} + v + T_{low}:\text{FUT} + \text{Pol} + T_{high}:\text{FUT} > \leftrightarrow \text{bhfaighidh} / C_T \]

Whatever condition requires portmanteaux to win out will require (35a) over (35b).

Since the portmanteaux in (35a) contains \(T_{h.sc/i.sc/g.sc/h.sc}\), (35b) will never have a chance to be Inserted.

This correctly predicts the complementarity between dependent forms and \(-r\).

**BUT WAIT, WE CAN'T GO TO THE BEACH YET.**

- The Spanning account makes a second prediction:
- **Dependent Forms Should Never Cooccur With Synthetic Endings**
  - We saw in §1.2 that synthetic endings expose T, or \(T_{low}\).
  - But we’ve seen that the Span Adjacency Hypothesis requires VEs for dependent forms to contain \(T_{low}\) (33).
  - Therefore, the same logic which correctly ruled out \(-r\) (\(T_{h.sc/i.sc/g.sc/h.sc}\)) from occurring with dependent forms should also block synthetic forms (\(T_{low}\)) from occurring with dependent forms.

### 3 Synthetic Endings with Dependent Forms

- Unfortunately for the Span Adjacency Hypothesis, synthetic endings (\(T_{low}\)) occur quite freely with dependent forms.
- Corcha Dhuibhne Irish (Ó Sé, 2000)

<table>
<thead>
<tr>
<th>Independent Form</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG chonac</td>
<td>feaca</td>
</tr>
<tr>
<td>2SG chonac-is</td>
<td>feaca-is</td>
</tr>
<tr>
<td>3SG chonac sé/sí</td>
<td>feacaigh sé/sí</td>
</tr>
<tr>
<td>1PL chonac-eamar</td>
<td>feac-amaír</td>
</tr>
<tr>
<td>2PL chonac-eabhair</td>
<td>feac-eabhair</td>
</tr>
<tr>
<td>3PL chonac-eadar</td>
<td>feac-adar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Form</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG geobh-ad</td>
<td>faich-ead</td>
</tr>
<tr>
<td>2SG geobh-air</td>
<td>faich-ir</td>
</tr>
<tr>
<td>3SG gheobhaidh sé/sí</td>
<td>faighidh sé/sí</td>
</tr>
<tr>
<td>1PL gheobh-aimid</td>
<td>faigh-imid</td>
</tr>
<tr>
<td>2PL gheobhaidh sibh</td>
<td>faighidh sibh</td>
</tr>
<tr>
<td>3PL gheobh-aid</td>
<td>ffaigh-id</td>
</tr>
</tbody>
</table>

Examples like this are quite easy to find in fact.
(38) a. ... ná rabh -ais choidhe gan casachtach... 
    ‘...that you were never without a cough...’  
    Breatnach 1947, pg. 93
b. nach bhfac -amar ... 
    ‘that we did not see...’  
    McCloskey and Hale (1984), pg. 495

- As if this were not bad enough for the Span Adjacency Hypothesis, the synthetic endings which occur with dependent forms are identical to the ones that occur with normal verbs.

(39) ‘see’ in the past

<table>
<thead>
<tr>
<th>Regular Verb</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG chuir-eas</td>
<td>feaca</td>
</tr>
<tr>
<td>2SG chuir-is</td>
<td>feaca-is</td>
</tr>
<tr>
<td>3SG chuir sé/sí</td>
<td>feacaigh sé/sí</td>
</tr>
<tr>
<td>1PL chuir-eamair</td>
<td>feac-amair</td>
</tr>
<tr>
<td>2PL chuir-eabhair</td>
<td>feac-abhair</td>
</tr>
<tr>
<td>3PL chuir-edar</td>
<td>feac-edar</td>
</tr>
</tbody>
</table>

(40) ‘get’ in the future

<table>
<thead>
<tr>
<th>Regular Verb</th>
<th>Dependent Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG cuir-fead</td>
<td>faigh-ead</td>
</tr>
<tr>
<td>2SG cuir-fír</td>
<td>faigh-fír</td>
</tr>
<tr>
<td>3SG cuir-fidh sé/sí</td>
<td>faighidh sé/sí</td>
</tr>
<tr>
<td>1PL cuir-fimid</td>
<td>faigh-imíd</td>
</tr>
<tr>
<td>2PL cuir-fidh sibh</td>
<td>faighidh sibh</td>
</tr>
<tr>
<td>3PL cuir-fid</td>
<td>faigh-id</td>
</tr>
</tbody>
</table>

4 Rephrasing the Problem/Towards a Solution

- What we want is to be able to write VEs like (41).

(41) a. < T sup>HIGH + √ROOT + v > ⇔ Dependent form / C T  
    b. < T sup>LOW + ¯ > ⇔ Synthetic Ending

- In other words, we want only the bolded nodes to go into dependent forms, and only the italicized nodes to go into synthetic endings.

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8With the exception of the first singular in the past. In some dialects, first singular dependent forms in the past are marked by depalatalizing the final consonant. This can easily be accounted for in our theory if we say that these forms, and only these forms, include T sup>LOW, and therefore the 1SG φ-features. Also recall the the orthographic ‘t’ in the future is purely orthographic; the synthetic endings in (40) are written differently but pronounced identically (Ó Sé, 2000).
• The problem is that this sequence, \(<T_{\text{HIGH}}, \sqrt{\text{ROOT}}, \nu>\) is not one of the possible Spans seen above in (25) above to the exclusion of \(T_{\text{LOW}}\).

**BUT THEY ARE LINEARLY CONTIGUOUS**

Thus, we can understand these data quite naturally in a theory which does the following:

• Linearization happens *prior* to Vocabulary Insertion (Adger, 2006; Arregi and Nevins, 2012; Haugen and Siddiqi, 2013).

• Vocabulary Insertion has access to this linear information, just like it has access to the results of all the other pre-VI operations, such as head movement or Lowering. There is no *à priori* reason for VI *not* to be sensitive to linearization, if linearization precedes VI.

• Vocabulary Insertion has access to entire Extended Projections (Williams, 2003).

While the question of the best way to formulate the right locality restrictions is ultimately an empirical one, these Irish data are such that we can start with the maximally restrictive conditions⁹.

\[(44) \quad \text{Locality predictions for possible portmanteaux under linear adjacency}\]

\[\text{In order for a node } \alpha \text{ and a node } \beta \text{ to be able to form a portmanteau morph:}\]

a. \(\alpha\) and \(\beta\) must be linearly adjacent.

b. \(\alpha\) and \(\beta\) must be in the same Extended Projection.

## 5 Conclusion

In this talk, we examined a seemingly non-local pattern of contextual suppletion: the dependent/independent alteration. We saw that, despite appearances, it is in fact maximally local. But it requires us to take the suggestion of Radkevich (2010) and Bobaljik (2012) that linear information is required for portmanteaux seriously. Furthermore, if we think that portmanteaux are the result of Vocabulary Insertion, then we need to rethink the role of linear information in Vocabulary Insertion.

### References


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⁹Another obvious restriction to add could be ‘\(\alpha\) and \(\beta\) must be in the same morphological word.’ I shy away from doing this however for fear of losing the French au portmanteaux results discussed in Svenonius (2012).


McCloskey, J. 2009. 'The Syntax of Clauses in Irish'. In *Lectures presented at Formal Approaches to Celtic Linguistics, University of Arizona*.


