# Comparative deletion in as-parentheticals\*

## Nicholas LaCara

University of Massachusetts Amherst

# 10 November 2012 Ellipsis 2012, Universidade de Vigo

#### 1 Introduction

Today's talk will focus on the syntax of predicate *as*-parentheticals – the boxed constituents in (1) (Potts 2002b,a).

- Predicate *as*-parentheticals contain gaps in the position of some predicate-denoting phrase (represented with \_\_\_).¹
- The interpretation of this gap is dependent on material elsewhere in the discourse. For example, the gap (1a) is resolved by the antecedent VP *kiss a pig*, and the gap in (1b) by the AP *proud of Sally*.
- (1) a. Harvey will kiss a pig, as Mary also will
  - b. Harvey is proud of Sally, as Mary also is \_\_\_ .

Although they look like VP *ellipsis* gaps, Potts argues these gaps are created by the *movement* of a syntactically empty VP operator into the CP layer of the *as-*clause.

• The evidence for movement is convincing.

In today's talk, I show that there must be a full VP with internal syntactic structure in order to account for a broader range of data. This requires that the missing VPs delete at PF.<sup>2</sup>

<sup>\*</sup>Many thanks are due to Kyle Johnson, Lisa Green, and Ellen Woolford for their help and guidance throughout this project. Many more are due to Mateus Barros, Hamida Demirdache, Nico Feria, Clint Hartzel, Jim McCloskey, Bern Samko, Brian Smith, Anie Thompson, and the members of the 2nd year seminar at UMass Spring 2012. All errors are mine alone.

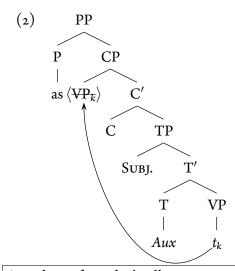
<sup>1</sup> This phrase can be of any category—verbal, adjectival, nominal, or prepositional. I will concentrate on verbal phrases today for ease of discussion. For the sake of simplicity, I will generally collapse the distinction between VP and  $\nu$ P since the distinction is not generally relevant for this talk.

<sup>2</sup> This follows work in Feria 2010 and McCloskey 2011, whose work was made in different contexts.

The evidence for movement and PF deletion suggests a hybrid analysis:

- There is a full VP that elides under identity with an antecedent, but this element must also be moved.
- The emerging picture looks a lot like comparative deletion as proposed by Kennedy (2002): A VP moves into the CP layer of the clause where it must undergo deletion.

This is the analysis I will present in the coming talk.



A road map for today's talk:

- §2 Some basic properties of as-parentheticals
- §3 Evidence for movement in *as*-parentheticals
- §4 Evidence for deletion in as-parentheticals
- §5 Using comparative deletion to account for the facts
- **6** Conclusion

## 1.1 Assumptions

- In this talk, I will assume the dichotomy between DEEP and SURFACE anaphora as proposed by Hankamer and Sag (1976).
- Following much recent work on the topic (Merchant 2001, Johnson 2001, Goldberg 2005, amongst others) I assume that surface anaphora is the result of DELETION of phonological material at PF.<sup>3</sup> I thus take ELLIPSIS to be a sub-type of deletion (*cf.* Williams 1977, Lobeck 1995, a.o.)
- I take deep anaphora to generally be pronominal in nature.4

<sup>3</sup> Given a theory of late vocabulary insertion like the one assumed in Distributed Morphology (Halle and Marantz 1993), surface anaphora could also be taken to be a failure or blocking of vocabulary insertion.

<sup>4</sup> See, however, Elbourne (2005), where some pronouns are partially derived by ellipsis.

## 2 As-parentheticals and other as-clauses

There are various kinds of *as-*clauses that do not contain obligatory gaps. These come with various adverbial readings

- (3) Jody speaks German <u>as Klaus speaks English</u> with a foreigner's accent. (Potts 2002b:(2)) *Manner*
- (4) As Mary bought some lettuce, Tom decided to make a salad. Rationale
- (5) Mary waved goodbye as the bus departed. Temporal

Predicate *as*-parentheticals like those in (1), while also headed by *as*, always contain a syntactic gap.<sup>5,6</sup> As Potts (2002b,a) discusses, these *as*-clauses have very different meanings.

- The as-parenthetical is not part of the main assertion of the clause.
- Rather, the material in *as*-parentheticals is conventionally implicated (Grice 1975): The speaker makes a commitment to the veracity of the content of the *as*-parenthetical without actually asserting that it is true.
- (6) John has kissed a pig, as I knew he would \_\_\_.
  - a. Asserts John has kissed a pig.
  - b. Conventionally implicates *I knew John would kiss a pig.*

The striking fact about the gaps in *as*-parentheticals is that they look as though they were created by verb phrase ellipsis (henceforth VPE).

• The gap is always some constituent that can be targeted by VPE.

Since this gap looks a lot like VPE, can it just be reduced to another case of VPE?

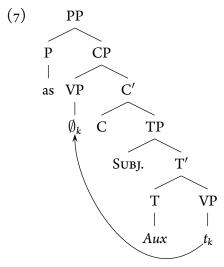
Potts says NO, as I also will.

## 3 Evidence for movement

Potts (2002b) argues specifically against a VPE analysis of *as*-parentheticals. Instead, he argues that the gap is created by the movement of a null VP *pro*-form into the left periphery of the clause embedded below *as*:

<sup>5</sup> There are also propositional *as*-parentheticals, which have CP-sized gaps and which take proposition-denoting antecedents. These behave differently from predicate *as*-parentheticals, so I will generally leave them aside today.

There are also cases of predicate *as*-parentheticals that contain apparent inversion, like *Harvey kissed a pig, as did Mary*. I do not treat these in this paper; see LaCara (In Prep).



• For a full exposition of Potts' analysis, see Appendix A.

Evidence for this comes from the following:

- §3.1 Island sensitivity
- §3.2 Locality restrictions on the antecedent
- §3.3 Interpretation and optionality
- §3.4 Irish complementizers

## 3.1 Island sensitivity

Potts (2002b:629-634) shows that the gaps in *as*-parentheticals may not occur in syntactic islands (Ross 1967).

- I provide roughly equivalent VPE controls in the (b) examples. These are grammatical.
- Since VPE is not sensitive to islands, but movement is, Potts takes this as evidence for movement and against ellipsis.
- (8) Relative clause island (Potts 2002b, (14b))
  - a. \* Nina quickly bought two durians, exactly as we met a chef who did t.
  - b. Nina quickly bought two durians, and we met a chef who also did \_\_\_.
- (9) Adjunct island (Potts 2002b, (15b))
  - a. \* Jim Durrow counts cards, just as the owners arrested Sammie when he did *t*.
  - b. Jim Durrow counts cards, but the owners arrested Sammie when he did \_\_\_.
- (10) Subject island (Potts 2002b, (16b))
  - a. \* He has strong arguments for the position, exactly as the linguist's claiming he does *t* made everyone smirk and giggle.

- b. He has strong arguments for the position, but the linguist's claiming he does \_\_\_ made everyone smirk and giggle.
- (11) Complex DP island (Potts 2002b, (17b))
  - \* Eddie fills his truck with leaded gas, just as they believed the report that he
    must t.
  - b. Eddie fills his truck with leaded gas, and they believed the report that he must .
- (12) Wh-island (Potts 2002b, (18b))
  - a. \* Chuck rides a unicycle, just as Sue asked me whether I could t.
  - b. Chuck rides a unicycle, and Sue asked me whether I could \_\_\_.

### 3.2 Locality

As Potts (2002b:627) discusses, if the gaps in *as*-parentheticals were created by ellipsis, we would expect the *as*-parentheticals to be able to find antecedents in the same places. However, comparing VPE in (13) and *as*-parentheticals in (14), we find that *as*-parenthetical can only find antecedents in VPs to which they are adjacent.

- (13) The fact that Sue read the map carefully probably means that she stayed on the trails. But we aren't sure whether Chuck did  $\langle VP \rangle$ .
  - a.  $\langle \overline{VP} \rangle$  = stay on the trails
  - b.  $\langle VP \rangle$  = read the map carefully
- The fact that Sue read the map carefully probably means that she stayed on the trails, as we know Chuck did  $\langle VP \rangle$ .
  - a. As-clause gap = stay on the trails
  - b. As-clause gap  $\neq$  read the map carefully

Since VPE doesn't show these restrictions, the gaps, he concludes, are not formed by ellipsis.

## 3.3 Optionality

As I noted in §2 above, the gaps in *as*-parentheticals are obligatory, whereas most other sorts of *as*-clauses do not contain obligatory gaps. However, it is possible for VPE to apply inside other kinds of *as*-clauses when there is an available antecedent:

(15) Jody speaks Thai as Tom does \_\_\_ - with a foreigner's accent. *Manner* (c.f. (3))

Thus, VPE can render an adverbial *as*-clause superficially identical to an *as*-parenthetical. This means that, provided the correct intonation, an example like (16) is ambiguous between adverbial and parenthetical readings:

(16) John has kissed a pig(,) as I thought he would \_\_.

- a. 'John has kissed a pig in the manner that I thought he would kiss a pig.'

  (manner)
- b. % 'John has kissed a pig because I thought he would kiss a pig.'7 (reason)
- c. 'John has kissed a pig, and I, the speaker, am letting you know that I thought he would kiss a pig' (parenthetical)

When we replace the gap in (16) with it's antecedent *kiss a pig*, the result is (17). In this example, only (a) and (b) readings are available; the (c) reading disappears.

(17) John has kissed a pig as I thought he would *kiss a pig*.

Some important facts about VPE, however, are that it is optional (Sag 1976), and it does not generally change the meaning of simple clauses like the ones here.<sup>8</sup>

- In cases like (16), we wouldn't expect an application of VPE to make the (c) reading available when it is not available in (17).
- Since VPE is optional, we would never expect it to have to apply to derive obligatory gaps.

Consequently, this constitutes evidence that the gaps in *as*-parentheticals are not derived by VPE.

#### 3.4 Irish

Irish has special complementizers associated with A'-movement, glossed as C below. Additionally, Irish has *as*-parentheticals, headed by the preposition *mar* 'as'. The complementizers that appear in Irish *as*-parentheticals are those that appear with A'-movement.

(18) Chuaidh se 'un an aonaigh mar a dubhairt sé a rachadh \_\_. went he to the fair as C said he C go.COND \_\_ 'He went to the fair as he had said he would.'

McCloskey (2011) notes that the missing constituent is the same constituent as the one elided by VPE but that the gap is indeed created by movement. He suggests the element which moves is a silent VP.

<sup>7</sup> Some consultants insisted that this reading was available while others have told me that it is not. Therefore, I have marked it with %.

<sup>8</sup> This is not to say that ellipsis never changes or limits the meaning of an utterance. For instance, ellipsis is well-known to be sensitive to quantifier scope of the antecedent (Sag 1976, Fox 1999).

## 3.5 Summary

The evidence presented in this section provides convincing evidence both for movement in *as*-parentheticals and against an account where the gaps are derived via VPE.

- 1. The island effects and the use of A' complementizers in Irish point toward a movement analysis of as-parentheticals.
- 2. The restrictions on locality and the non-optionality of the gaps suggest that traditional VP ellipsis does not derive the gaps.

Potts concludes that *as*-parentheticals contain a phonologically null, syntactically empty VP *pro*-form.

- Due to the semantics of the preposition *as* that Potts provides, the predicate to which the *as*-parenthetical adjoins fills in the missing material.
- Since VPE cannot create the gap, Potts concludes that there must be a null pronominal. He does not consider other forms of deletion.

## 4 Evidence for deletion

The above tests show that *as*-parentheticals must contain movement of some sort and that VPE is not responsible for deriving the gaps.

- Potts claims that the moved element is a *pro-*form.
- However, if we look at a broader range of data, we find evidence for a fully articulated VP.

In this section, I present evidence consistent with a PF deletion account of *as*-parentheticals:

- It is possible to extract heads (§4.1) and arguments (4.2) from the gaps in *as*-parentheticals.<sup>9</sup>
- *As*-parentheticals require linguistic antecedents (§4.3).
- Vehicle change effects are observed in *as*-parentheticals (§4.4).

<sup>9</sup> A'-movement out of the gaps, however, is ungrammatical. This is hardly surprising, however, since *as*-parentheticals are clearly formed by A'-movement; we expect them to be islands.

#### 4.1 Head extraction

Verb-stranding occurs when a verb is apparently left behind without any VP-internal material. This is exemplified in (19) from Portuguese, where the verb *guardavam* 'kept' appears without either the object *as jóias* 'the jewels' or the PP *no banco* 'in the bank', although these elements are understood.

- Eles guardam as jóias no banco, pois todos os vizinhos que não they keep the jewels in the bank because all the neighbors that not <a href="mailto:guardavam">guardavam</a> foram assaltados.
  <a href="mailto:kept">kept</a> were assaulted

  'They keep the jewels in the bank because all the neighbors that didn't were assaulted.'

  Costa and Duarte 2001
  - This cannot be the result of object drop because object drop does not typically occur in islands (which *as*-parentheticals are), <sup>10</sup> and since object drop cannot target nonnominal elements like the PP *no banco*, 'in the bank', in addition to the argument *as jóias*, 'the jewels' (Raposo 1986, Costa and Duarte 2001, Cyrino and Matos 2002)

Goldberg (2005) argues that cases of so-called verb stranding VPE should be analyzed as head movement out of the site of VPE.

- The verbs that appear in verb-stranding cases can be shown to be outside of VP, but first-merging them outside of VP leads to numerous unwanted syntactic stipulations and leads to severely complicated semantics.
- Languages that have independently attested V°-to-T° movement have verb stranding.
- This suggests, then that the verbs originate in full VPs, just like what is assumed for English VPE. Thus, verb-stranding is evidence for a deletion account of ellipsis and not for a pronominal account.
- Goldberg's analysis follows straightforwardly from the assumption that *pro*-forms do not have internal syntactic structure.

It turns out that languages that have verb stranding VPE also have verb stranding *as*-parentheticals.

(20)	Chuaidh se 'un an aonaigh mar a dubhairt sé a <u>rachadh</u>						_•
	went	he to	the fair	as	c said	he c go.cond	
	'He went to the fair as he had said he would.'						(= (18)) Irish

<sup>10</sup> See Costa and Duarte 2001 for a few places this breaks down in Brazilian Portuguese. Apparently, null objects can occur in islands in Brazilian Portuguese, but only if the referent is non-animate.

- Obrigado por entrar em minha vida, como disse que <u>entraria</u> \_\_\_.

  thank.you for enter.INF in my life as said that enter.COND

  'Thank you for entering my life, as you said you would.' *Brazilian Portuguese*<sup>11</sup>

  http://www.suaescolha.com/jesus/religioes/divino/
- (22) The FAA has a similar duty in the USA, as <u>have</u> \_\_ equivalent organisations in almost every country throughout the world. (BNC CN2 770) *British English*<sup>12</sup>

Given Goldberg's analysis of verb-stranding,<sup>13</sup> it would seem that these cases are best explained by a deletion account.

- A pronominal account, like the one provided by Potts, does not provide a way of understanding where the stranded verbs originate.
- A deletion account provides a straightforward explanation: The verbs raise out of a VP that subsequently deletes at PF.

## 4.2 Argument extraction

Like head movement, A-movement is possible out of deleted constituents (Schuyler 2001). Given the standard syntactic theory of argument structure, the subjects of clauses with unaccusative, passive, and raising predicates originate internal to the VP, where they receive their  $\theta$ -roles.

- As-parentheticals are permitted to occur with these sorts of subjects.
- In (23a) we see that *as*-parentheticals can host the subjects of unaccusatives, in (23b) we see passive subjects, and in (23c) we see raised subjects.
- a. The ship sank, as I thought it would \_\_. Unaccusative
  b. The ship was sunk, as I think the barge also was \_\_. Passive
  c. Mary seems to be happy, as she should \_\_. Raising

The most straightforward way to account for the *as*-parenthetical data is to assume that there is a fully articulated VP in the structure out of which these arguments move.

• If the gap were created by a null VP *pro*-form, we would need to make *ad hoc* stipulations about the syntactic realizations of argument structure.

<sup>11</sup> Thanks to M. Barros for confirming this example.

<sup>12</sup> As discussed in, *e.g.*, Pollock 1989, Potsdam 1997, the possessive main verb *have* can raise to T° in British and Irish English, where it may be stranded by VPE. Thanks to J. McCloskey for confirming this example.

<sup>13</sup> See also McCloskey 1991, 2011; Cyrino and Matos 2002, Costa and Duarte 2001; and Potsdam 1997 for the languages cited.

• Thus, this should be seen as evidence in favor of the deletion account.<sup>14</sup>

## 4.3 Linguistic antecedents

Surface anaphora, like VPE, must take so-called linguistic antecedents (Hankamer and Sag 1976):

- (24) Situation: You and your friend walk into a room and all the windows are broken. Your friend says:
  - a. # I can't believe somebody would \_\_!

VPE

b. I can't believe somebody would do this!

Predicate as-parentheticals must also take linguistic antecedents:15

- (25) Situation: The speaker is at a farm. He sees Harvey in the pigpen with his lips pressed firmly against those of a pig. The speaker exclaims:
  - a. # Aha! (Just) as I thought you would.
  - b. # Aha! (Just) as you said you were!
  - c. # Aha! (Just) as I suspected you might!

Note that cross-speaker *as*-parentheticals are generally good. This suggests that the problem with (25) is not that the *as*-parentheticals are dependent on being in the same utterance as the antecedent.

- (26) Situation: Bill and his friend Harvey walk into a room and all the windows are broken. Harvey has a bad temper, and Bill knows that Harvey has been talking about throwing bricks through windows in order to relieve some stress.
  - a. BILL: Harvey, did you break all these windows?
  - b. HARVEY: Yes, just as I told you I would.

This means that *as*-parentheticals pattern with surface anaphora, which typically require a linguistic antecedent.

## 4.4 Vehicle change effects

Deletion phenomena exhibit what are known as vehicle change effects, where a name in an ellipsis site seems to behave like a pronoun with regard to the binding conditions (Fiengo and May 1994).<sup>16</sup> We see this arise in the comparison of (27) and (28).

- 14 One possible way to try to get around the above conclusion would be to claim that there is instead a phonologically null  $V^\circ$  pro-form that picks up the denotation of the antecedent verb or verb phrase. This pro- $V^\circ$  could take an internal argument and assign it an internal  $\theta$ -role. While this might work for (American) English, the verb-stranding data above speaks directly against this approach in other languages, and there is no reason, to my knowledge, to believe that as-parentheticals in others language differ significantly from those in English.
- 15 It is worth noting that this is one place where propositional *as*-parentheticals differ from predicate *as*-parentheticals (see footnote 5): they do not require linguistic antecedents (Potts 2002b:655).
- 16 The formal analysis of these facts is not of interest here.

- The examples in (27) are bad because they both run aground of Binding Condition C, which prohibits names like John from being in the C-command domain of a coindexed argument.
- Under ellipsis as in (28), the pattern is what we would expect from Condition B (29), which requires a pronoun to be unbound by a C-commanding argument in (roughly) the same clause. Thus, it is argued that names behave like pronouns in ellipsis sites:
  - (28a) is ungrammatical since there is no clause boundary between the elided *John* and *he*.
  - (28b) is grammatical, as there is a clause boundary between he and the elided John.
- (27) a. \* Mary is proud of John, and he, is proud of John, too.
  - b. \* Mary is proud of John<sub>i</sub>, and he<sub>i</sub> thinks I am proud of John<sub>i</sub> too.
- (28) a. \* Mary is proud of John<sub>i</sub>, and  $he_i$  is too.
  - b. Mary is proud of John $_i$ , and he $_i$  thinks I am too.
- (29) a. \* Mary is proud of John, and he, is proud of him, too.
  - b. Mary is proud of John<sub>i</sub>, and he<sub>i</sub> thinks I am proud of him<sub>i</sub> too.

As-parentheticals exhibit vehicle change effects, at least marginally:

- (30) Mary is proud of  $John_i$ ...
  - a. \*? ... as  $he_i$  also should be.
  - b. ... as  $he_i$  thinks I should be.

Given that vehicle change is a property of deletion phenomena (see also Kennedy 2000, Bhatt and Takahashi 2011), this constitutes evidence that deletion has occurred in *as*-parentheticals.

#### 4.5 Summary

In this section, we saw that there is evidence for deletion in *as*-parentheticals.

- It is possible to extract material from the gaps.
- They require linguistic antecedents.
- They exhibit vehicle change effects.

However, as we saw in the last section, *as*-parentheticals could not possibly be derived via VPE, and there is credible evidence that movement occurs. In the following section, I provide an analysis that reconciles these issues.

## 5 Comparative deletion in as-parentheticals

Ideally, we do not want to complicate the theory of ellipsis by introducing a new ellipsis operation just to account for *as*-parentheticals.

- However, the properties described above are largely similar to those of COMPARATIVE DELETION (henceforth CD) (Bresnan 1973).
- I propose here that CD is not a process limited to comparatives, but also occurs elsewhere namely, in this case, *as*-parentheticals.

I will begin by describing some properties of CD, and then I will show how it accounts for *as*-parentheticals.

## 5.1 Some properties of CD

It has long been assumed that the standard clause of comparatives (the *than* or *as* clause) contains a surface-deleted element that serves as the standard of comparison (Bresnan 1973, Kennedy 2000, 2002). Thus, there is something like a silent *tall* in the *than-*clause in (31).

(31) Mary is taller than Bill is \_\_\_.

Comparative deletion has many of the properties that we have seen so far:

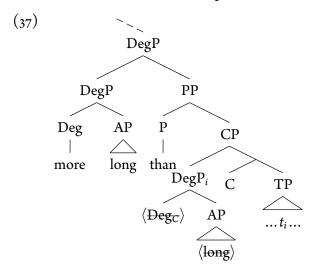
- It is known to be island sensitive (Bresnan 1973):
- (32) \* Barry is taller than I know a man who is \_\_\_.
  - It has locality restrictions on its antecedents (Kennedy 1997, Lechner 2004:154).
     Comparatives must take a local antecedent; in (33), the antecedent must be long, and not wide.
- (33) The table is wider than this rug is, but this rug is longer than the desk is \_\_\_
  - a. = d-long
  - b.  $\neq$  d-wide
  - It is not optional.17
- (34) \* Mary is taller than Bill is tall.
  - Comparatives show vehicle change effects (Kennedy 2000, Lechner 2004, Bhatt and Takahashi 2011):
- (35) a. \* Mary is prouder of John, than he, should be.

<sup>17</sup> I set aside comparative subdeletion here, the status of which is somewhat more complicated.

b. Mary is prouder of John, than he, thinks she should be.

The facts above lead Kennedy (2000, 2002) to the following formulation of CD, schematized in (37):

(36) [Comparative deletion] involves overt movement of the compared constituent to the specifier of a clausal complement of than/as, plus deletion under identity with the head of the comparative. (Kennedy 2002:556)

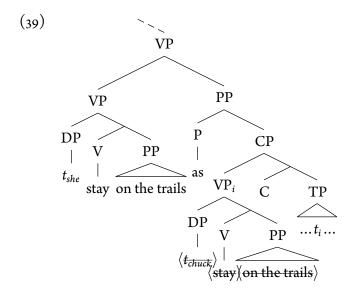


- The movement accounts for the island effects.
- The lack of optionality is taken to fall out from the fact that the bases of movement chains are not normally pronounced.
- The deletion accounts for the vehicle change effects.
- The locality effects are linked to the fact that the deletion occurs under identity with the phrase that the *than-*clause adjoins to.

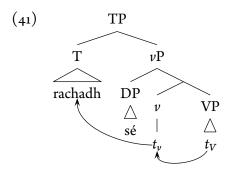
## 5.2 Applying CD to as-parentheticals

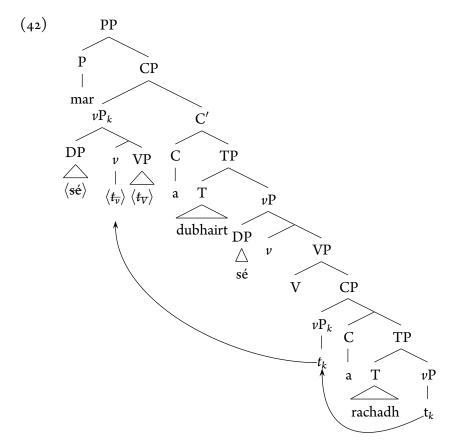
This operation provides us with exactly what we need for *as*-parentheticals.

- The missing VP moves into the left periphery of the *as-*clause.
- There it deletes under identity with the phrase it is adjoined to.
- (38) The fact that Sue read the map carefully probably means that she stayed on the trails, as we know Chuck did  $\langle VP \rangle$ . (=(14))



- Movement explains the island effects, as above.
- Since this is a movement, the obligatory gaps are explained if we assume that we don't pronounce the base of the chain.
- The locality effects fall out from the fact that deletion must occur under identity with the phrase that the *as*-parenthetical is adjoined to.
- Finally, since we have a full VP in the structure, we can move elements out of the missing VP.
- (40) Chuaidh se 'un an aonaigh mar a dubhairt sé a rachadh. went he to the fair as C said he C go.COND 'He went to the fair as he had said he would.'





#### 6 Conclusion

In this talk I have shown that comparative deletion provides us a better way of understand as-parentheticals than does the original analysis formulated by Potts (2002b,a).

- Potts shows convincingly that *as*-parentheticals must contain movement and that they are not derived by VPE.
- However, further data suggest that we still need a deletion operation of some sort to explain a wider range of data.
- Comparative deletion gives us what we need.

This has several implications:

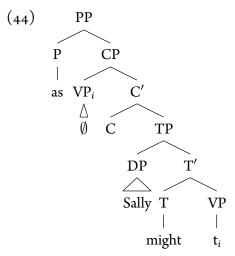
- It provides some independent support for CD. Lechner (2004:9) notes that comparative deletion is generally thought to be construction-specific, and that it ought to therefore be removed from the grammar. However, finding it at work in a construction unrelated to comparatives suggests that it may have broader application, and thus independent motivation.
- As-parentheticals provide evidence for deletion in a place where it has been hitherto unnoticed, which broadens our view of elliptical constructions.

• Insofar as it expands our view of ellipsis, it also provides evidence for the deepsurface dichotomy.

## A Potts' analysis

Potts' analysis of *as*-parentheticals combines movement of a VP *pro*-form with a special definition for the preposition *as*.

- A null VP *pro*-form moves from the position of the gap into the CP layer of the clause embedded under *as*, as shown in (44).
- The movement explains the island effects, why material cannot be pronounced in the gap, and the use of A'-complementizers in Irish.
- (43) Mary kissed John, as Sally might.



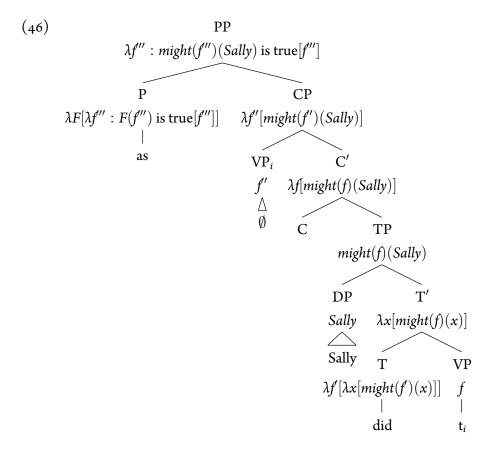
The semantics that Potts gives to as is meant to explain the interpretation it receives. The definition is given in (45) (Potts 2002b:654):

$$(45) \qquad [\![ \mathsf{as}_{pred} ]\!] = [\lambda F \in D_{\langle \langle s, \langle e, t \rangle \rangle, t \rangle} [\lambda f \in D_{\langle s, \langle e, t \rangle \rangle} : F(f) \text{is true}[f]]]$$

- This denotation takes an expression with an open property variable as its first argument and a property as its second argument.
- The colon notation ' $\lambda X \lambda x: X(x)$  is true...' indicates that the function is defined only when X(x) is true. This is meant to explain the conventional implicature that as-parentheticals introduce: The content of the as-parenthetical is assumed to be true without being asserted.

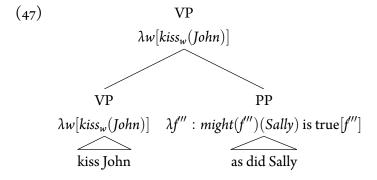
In order for the clause embedded under *as* to combine with *as*, predicate abstraction applies to the CP, abstracting over the VP *pro*-form. The tree in (46) shows how this works, following the brief formalism provided by Potts (2002a:84) for predicate *as*-parentheticals.

• Here, the VP *pro*-form introduces the variable f'. Since f' is free, it can be bound by predicate abstraction.



This in turn combines with a VP, as shown in (47).

- Using this as an example, combining the VP with the *as*-parenthetical requires  $might(\lambda w.kiss_w(John))(Sally)$  to be true because of the restriction on the property argument. If this is satisfied, then the conversational implicature is felicitous.
- The tricky bit is that none of the material in the *as*-parenthetical is actually asserted. Only the material from the VP survives for further semantic computation.



It is the adjunction that explains the locality constraint on as-parentheticals seen in §3.2.

• The as-parenthetical can only pick up the denotation of the VP to which it adjoins.

Thus, under this analysis, the interpretation of the gaps in *as*-parentheticals is entirely the result of the mechanisms that dictate semantic interpretation of pronouns. A lambda abstraction over a variable introduced by a VP *pro*-form is responsible for providing the 'missing' VP with an interpretation, obviating the need to appeal to ellipsis.

#### References

- Bhatt, Rajesh, and Shoichi Takahashi. 2011. Winfried Lechner, Ellipsis in comparatives. *The Journal of Comparative Germanic Linguistics* 14:139–171.
- Bresnan, Joan. 1973. Syntax of the comparative clause construction in English. *Linguistic Inquiry* 4:275–343.
- Costa, João, and Inês Duarte. 2001. Objectos nulos em debate. URL http://www.fl.ul.pt/dlgr/mateus/14.ps, manuscript. Published in Castro & Duarte (eds.): Razões e Emoção. Miscelânea de Estudos para Maria Helena Mateus. Lisboa: Imprensa Nacional-Casa da Moeda.
- Cyrino, Sonia M. L., and Gabriela Matos. 2002. VP ellipsis in European and Brazilian Portuguese a comparative analysis. *Journal of Portuguese Linguistics* 1:177–195.
- Elbourne, Paul. 2005. Situations and Individuals. Cambridge, Mass.: MIT Press.
- Feria, Nico. 2010. Inverting as-Parentheticals. Master's thesis, University of California, Santa Cruz.
- Fiengo, Robert, and Robert May. 1994. *Indices and Identity*, volume 24 of *Linguistic Inquiry Monographs*. Cambridge, Massachusetts: MIT Press.
- Fox, Danny. 1999. *Economy and Semantic Interpretation*. Number 35 in Linguistic Inquiry Monograph. Cambridge, Mass.: The MIT Press.
- Goldberg, Lotus. 2005. Verb-Stranding VP Ellipsis: A Cross-Linguistic Study. Doctoral Dissertation, McGill. URL http://www.lotusgoldberg.net/dissertation.html.
- Grice, Paul H. 1975. Logic and conversation. In *Syntax and Semantics, Volume 3: Speech Acts*, ed. Peter Cole and Jerry Morgan, 43–58. New York: Academic Press.
- Halle, Morris, and Alec Marantz. 1993. Distributed Morphology and the Pieces of Inflection. In *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. Samuel Jay Keyser and Kenneth Hale, 111–176. Cambridge, Mass.: MIT Press.
- Hankamer, Jorge, and Ivan Sag. 1976. Deep and Surface Anaphora. *Linguistic Inquiry* 7:391–428.
- Johnson, Kyle. 2001. What VP Ellipsis Can Do, and What it Can't, but not Why. In *The Handbook of Contemporary Syntactic Theory*, ed. Mark Baltin and Chris Collins, 439–479. Blackwell.
- Kennedy, Chris. 1997. Projecting the adjective: The syntax and semantics of gradability and comparison. Doctoral Dissertation, University of California, Santa Cruz.
- Kennedy, Christopher. 2000. Comparative (Sub)deletion and Ranked, Violable Constraints in Syntax. In *The Proceedings of the 30th Meeting of the North East Linguistic Society*. Amherst, Mass.: GLSA Publications.

Kennedy, Christopher. 2002. Comparative Deletion and Optimality in Syntax. *Natural Language and Linguistic Theory* 20:553–621.

LaCara, Nicholas. In Prep. Inversion, deletion, and focus in as-parentheticals. Talk to be presented at session on Parenthesis and Ellipsis, DGFS 34.

Lechner, Winfried. 2004. Ellipsis in Comparatives. Berlin: Walter de Gruyter.

Lobeck, Anne. 1995. *Ellipsis*. New York: Oxford University Press.

McCloskey, James. 1991. Clause Structure, Ellipsis and Proper Government in Irish. *Lingua* 85:259–302.

McCloskey, James. 2011. The Shape of Irish Clauses. In *Formal Approaches to Celtic Linguistics*, ed. Andrew Carnie, 143–178. Newcastle upon Tyne: Cambridge Scholars Publishing.

Merchant, Jason. 2001. *The Syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis.* Oxford Studies in Theoretical Linguistics. Oxford University Press.

Pollock, Jean-Yves. 1989. Verb Movement, Universal Grammar, and the Structure of IP. *Linguistic Inquiry* 20:365–424.

Potsdam, Eric. 1997. English Verbal Morphology and VP ellipsis. In *The Proceedings of the 27th Meeting of the North East Linguistic Society*, 353–368.

Potts, Christopher. 2002a. The Lexical Semantics of Parenthical-as and Appositive-which. *Syntax* 5:55–88.

Potts, Christopher. 2002b. The syntax and semantics of As-parentheticals. *Natural Language & Linguistic Theory* 20:623–689.

Raposo, Eduardo. 1986. On the Null Object in European Portuguese. In *Studies in Romance Linguistics*, ed. Osvaldo Jaeggli and Carmen Silva-Corvalán, Publications in Language Sciences 24. Dordrecht: Foris Publications.

Ross, John Robert. 1967. Constraints on Variables in Syntax. Doctoral Dissertation, Massachusetts Institute of Technology.

Sag, Ivan. 1976. Deletion and Logical Form. Doctoral Dissertation, Massachusetts Institute of Technology.

Schuyler, Tami. 2001. Wh-Movement out of the Site of VP Ellipsis. Master's thesis, University of California, Santa Cruz.

Williams, Edwin S. 1977. Discourse and Logical Form. *Linguistic Inquiry* 8:101–139.

Nicholas LaCara
Department of Linguistics
226 South College Bldg.
University of Massachusetts
150 Hicks Way
Amherst, MA 01003-9274, USA
nlacara@linguist.umass.edu

Data cited herein has been extracted from the British National Corpus Online service, managed by Oxford University Computing Services on behalf of the BNC Consortium. All rights in the texts cited are reserved.