

The Ellipsis Movement Generalization and the Notion of Phase

1. Outline

- Cyclicity can be viewed as syntax-phonology interactions in current theory. (Chomsky's theory of phase, Fox and Pesetsky 2005 *etc.*)
- If this is correct, there must be generalizations about the impact of phonology on syntax.
- We present one such generalization, called the Ellipsis Movement Generalization (EMG), and a possible account of it using a particular notion of phase.

Layout

Section 2: McCloskey's observation on Irish

Section 3: Toward the EMG --- McCloskey's observation goes beyond Irish but his account doesn't.

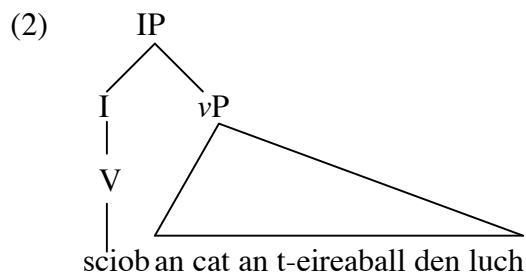
Section 4: A phase-based analysis of the EMG

Section 5: Some implications

2. McCloskey's Observation: Irish

McCloskey (2004)

- (1) Sciob an cat an t-eireaball den luch.
snatched the cat the tail from-the mouse
'The cat cut the tail off the mouse.'



vP-ellipsis is possible:

- (3) a. Ar sciob?
 INTERR-PAST snatched
 ‘Did it?’
 b. Creidim gur sciob.
 I-believe C-PAST snatched
 ‘I believe it did.’
- (4) Teach beag a cheannaigh muid.
 house little aL bought we
 ‘It was a little house that we bought.’

Overt vP-movement is impossible:

- (5) *_[vP] An cat an t-eireaball den luch] a sciob _{t_{vP}}.
 the cat the tail from-the mouse aL snatched
 ‘It was the cat cutting the tail off the mouse that happened.’
- (6) a. Céacu ceann a dhíol tú?
 which one aL sold you
 ‘Which one did you sell?’
 b. an t-ainm a hinnseadh dúinn a bhí ar an áit
 the name aL was-told to-us aL was on the place
 ‘the name that we were told was on the place’

Movement of phonologically null vP is possible:

mar-parentheticals

- (7) Bhí lá galánta ann mar a thuar Proinnsíos a bheadh _{t_{vP}}.
 was day beautiful in-it as aL predicted Proinnsíos aL be(COND)
 ‘It was a beautiful day, as Proinnsíos had predicted it would be.’
- (8) [_{PP} mar [_{CP} Op aL [_{IP} V [_{CP} t_{vP}’ aL [_{IP} V t_{vP}]]]]]
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McCloskey’s (2004) account:

McCloskey (2004) suggests that the ill-formedness of (5), as opposed to the well-formedness of (7), is basically due to the presence of the “trace” of V in the fronted constituent. (7), on the other hand, is grammatical since the offending “trace” of V is deleted altogether.

3. Toward a Generalization

- (9) *The Ellipsis Movement Generalization (EMG)*
 If a certain category can undergo ellipsis, it cannot undergo movement except when it is phonologically null.

3.1. English

VP-ellipsis is possible:

(10) John met Mary after Bill did [_{VP} ~~meet Mary~~].

Overt VP-movement is impossible:

- (11) a. *_{VP} eat the banana] Mary certainly did *t*_{VP}.
b. [_{VP} *t*_{SUB} eat the banana] Mary certainly did *t*_{VP}.

Huang (1993) and others

(12) John_i wonders which pictures of himself_{i/j} Bill_j likes.

(13) John_i said that wash himself_{*i/j} Bill_j certainly would.

- (14) a. John said that [_{VP} *t*_{Bill} v [_{VP} wash himself]] Bill certainly would *t*_{VP}.
b. *John said that [_{VP} wash himself] Bill certainly would [_{VP} *t*_{Bill} v *t*_{VP}].

Movement of phonologically null VP is possible:

Potts (2002b) on “predicate *as*-parentheticals”

- (15) a. He arrived on time, as I had said he would.
b. I believe, as do all my friends, that war is now inevitable.

(16) The fact that Sue read the map carefully probably means that she stayed on the trails. But we aren't sure whether Chuck did [_{VP}].

- a. [_{VP}] = stay on the trails
b. [_{VP}] = read the map carefully


(17) The fact that Sue read the map carefully probably means that she stayed on the trails, as did Chuck.

- a. *as*-clause gap = stay on the trails
b. *as*-clause gap ≠ read the map carefully

(18) a. Eddie fills his truck with leaded gas. They believed the report that he must [_{VP}].

- b. *Eddie fills his truck with leaded gas, just as they believed the report that he must.

(19) [_{PP} as [_{CP} *Op* do [_{IP} all my friends [_{VP} *t*_{SUB} *t*_{VP}]]]]



- (20) a. John washed his car, and Bill did [_{VP} ~~wash his car~~], too.
b. John washed his car, just as Bill did.

IP-ellipsis is possible:

(21) Jack bought something, but I don't know [_{CP} what [_{IP} ~~Jack bought *t*~~]].

Overt IP-movement is impossible:

Abels (2003)

- (22) a. Frank saw a play that was long and boring yesterday.
 b. Frank saw a play yesterday [_{CP} that was long and boring].
 c. *Frank saw a play that *t* yesterday [_{IP} was long and boring].

- (23) a. Mary told herself that John is a fool at least twice a day.
 b. [_{CP} That John is a fool], Mary told herself *t* at least twice a day.
 c. *_{[IP} John is a fool], Mary told herself that *t* at least twice a day.

Potts (2002b) on “CP *as*-parentheticals”

- (24) a. I am, as I'm sure is all too obvious, very nervous.
 b. We should resign right away, as I'm sure you'll agree.

(25) [_{PP} as [_{CP} *Op* [_{IP} I'm sure [_{CP} *t*_{CP}' [_{IP} you'll agree *t*_{CP}]]]]]

The diagram shows two upward-pointing arrows. The first arrow starts from the *t*_{CP}' position and points to the *Op* position. The second arrow starts from the *t*_{CP} position and points to the *t*_{CP}' position. A vertical line connects the *t*_{CP}' and *t*_{CP} positions.

3.2. Japanese

CP-ellipsis is possible:

- (26) Taroo-ga nanika-o katta ga,
 Taro-NOM something-ACC bought but
 boku-wa [[_{FocP} nani-o [_{CP} Taroo-ga ~~*t*~~ katta ~~no~~] da] ka] sira-nai.
 I-TOP what-ACC Taro-NOM bought C COP Q know-NEG
 ‘Taro bought something, but I don't know what.’

Overt CP-movement is impossible:

- (27) a. Boku-wa [[_{FocP} [_{CP} Taroo-ga uso-o tuita no] da] to] omotteita.
 I-TOP Taro-NOM lie-ACC told C COP thought
 ‘I thought that Taro told a lie.’
 b. *_{[CP} Taroo-ga uso-o tuita no] boku-wa[[_{FocP} *t*_{CP} da] to] omotteita.
 Taro-NOM lie-ACC told C I-TOP COP thought
 Lit. ‘That Taro told a lie, I thought.’

yooni-parentheticals

- (28) a. Taroo-ga sinhannin dat-ta, boku-ga *t*_{CP} omotteita yooni.
 Taro-NOM true culprit COP-PAST I-NOM thought as
 ‘Taro was the true culprit, as I thought.’

- b. *Taroo-ga sinhannin dat-ta, boku-ga t_{CP} omotteita keizi-ni
 Taro-NOM true culprit COP-PAST I-NOM thought detective-DAT
 atta yooni.
 met as
 Lit. ‘Taro was the true culprit, as I met a detective who thought.’

Movement of phonologically null CP is possible:

- (29) a. Taroo-ga uso-o tuita, boku-ga t_{CP} da to omotteita yooni.
 Taro-NOM lie-ACC told I-NOM COP thought as
 ‘Taro told a lie, as I thought.’
 b. *Taroo-ga uso-o tuita, boku-ga t_{CP} da to omotteita
 Taro-NOM lie-ACC told I-NOM COP thought
 keizi-ni atta yooni.
 detective-DAT met as
 Lit. ‘Taro told a lie, as I met a detective who thought.’

- (30) [_{PP} [_{CP} *Op* [_{IP} boku-ga [[_{FocP} t_{CP} da] to] omotteita] yooni]
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3.3. Summary

(31) Elided Category	VP	vP	IP	CP
Language	English	Irish	English	Japanese
Overt Movement	*	*	*	*
Covert Movement	OK	OK	n/a	OK

Problems with McCloskey 2004

It does not explain why the VP-movement in English (11a), the IP-movement in English (22c) and (23c), and the CP-movement in Japanese (27b) fail. For instance, unlike Irish, English lacks overt verb movement and hence the fronted VP in (11a) does not contain any stranded “copy” of V. More generally, it offers no principled account of why there are correlations between ellipsis and movement described by the EMG: under McCloskey’s view, they are merely a coincidence.

4. A Phase-based Analysis

Q1: Why is it that if a certain category can undergo ellipsis, it cannot undergo overt movement?

Holmberg (2001) on Finnish

- (32) OnkoLiisa kotona?
 is-Q Liisa at-home
 ‘Is Liisa home?’

- a. On.
is
'Yes, she is.'
- b. On se.
is she
'Yes, she is.'

Holmberg (2001:143) proposes that “an ellipsis is a phase that is spelled out as null” (see also Lobeck 1995, Merchant 2001 among others for a set of licensing and identification requirements on ellipsis).

(33) *Transfer*

In phase P with head H_p , Transfer applies to the complement domain of H_p as soon as the edge of P is extended.

(Hiraiwa 2002, cf. Nissenbaum 1998, Chomsky 2000, 2001)

If we say following Holmberg 2001 that categories deletable under ellipsis correspond to spelled-out domains, then the observed negative correlation between ellipsis and overt movement can be captured. But (33) needs to be modified to deal with the immobility of Irish vP , English IP, and Japanese CP: in the relevant examples, the phase heads do not require edge extension.

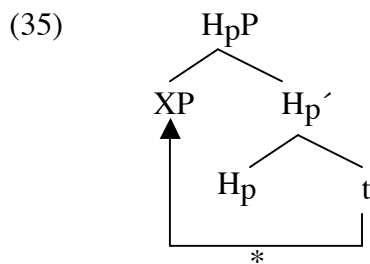
(34) *Transfer (revised)*

Transfer applies to the complement domain of head H as soon as all of the uninterpretable features of H are eliminated.

cf. Svenonius 2004, Chomsky 2005

(34) departs from Chomsky 2000, 2001 in that any projection can in principle be a phase (cf. Chomsky 1986). If we regard edge extension as triggered by an uninterpretable feature (or an EPP feature), then (34) can subsume (33).

In order for this account to work, however, we must prevent (35):



(cf. Abels 2003)

Abels (2003) observes that “no phrase can be both the complement and the specifier of the same head.”

Assume following Chomsky (2001) that every step of movement must be motivated by feature checking. Assume further that mutual c-command suffices to establish checking relations (Epstein *et al.* 1998). Then all the relevant features on H_p will be checked against XP when H_p and XP are merged. This means in turn

that no feature checking takes place as a result of the movement in (35). Since the movement is superfluous, it is forbidden.

A1: Because categories that can undergo ellipsis are spelled-out domains and hence syntactically inert.

Q2: Why is it that categories that can undergo ellipsis can move if they are null operators?

An economy consideration would predict that a category without phonological features cannot be transferred and should remain syntactically active: there would simply be no point in sending it to PF. Exploring various issues related to the syntax-semantic interface, Fox (2000) argues for (36).

(36) *Scope Economy*

Scope-shifting operations (SSOs) cannot be semantically vacuous.

(Fox 2000)

A generalized version of (36):

(37) *Interface Economy*

An operation is triggered only if it has an effect on output at the interface.

cf. Chomsky 1995

If there exists an economy condition along the lines of (37), categories that are targeted by Transfer and thus can potentially undergo ellipsis should be able to undergo movement if it lacks phonological features.

A2: Null operators simply do not get spelled out because of economy.

5. Conclusion

To the extent that the present analysis is on the right track, it lends support to:

- (a) The basic framework of the Minimalist Program (Chomsky 1995, 2000, 2001), where cyclicity is regarded as syntax-phonology interactions (cf. Fox and Pesetsky 2005)
- (b) Holmberg's (2001) treatment of ellipsis as phase-related phenomena
- (c) The existence of a global economy condition, *i.e.*, Interface Economy (cf. Chomsky 1995, Fox 2000) (There may be an effective division of labor between local and global economy conditions.)

Also, it implies that:

- (d) The deletion theory of ellipsis (Chomsky and Lasnik 1993, Merchant 2001 among others) is superior to the copy theory of ellipsis (Chung *et al.* 1995). Under the copy theory, where ellipsis involves generation of empty constituents, the negative correlation between ellipsis and overt category movement, expressed in the EMG, is just a coincidence: Transfer is supposed to be relevant to overt movement, but not to ellipsis (because of Interface

- Economy).
- (e) Ellipsis sites have full syntactic structure with lexical items containing phonological features (the deletion theory). Then the hypothesis of Late Insertion advocated by Distributed Morphology (Halle and Marantz 1993), where syntactic categories have no phonological content, cannot be maintained.

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