

THREE HOME TRUTHS ABOUT EXTRAPOSITION

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Extrapolation appears, on the face of it, to result from overt rightward A' movement of the extrapolated phrase. This analysis faces both theoretical and empirical problems. The existence of derived right-adjoined positions is incompatible with both Kayne's original antisymmetry theory and the weaker variant of it proposed in Takano (2003). It also appears to be inconsistent with certain facts regarding the interaction of extrapolation with binding, scope and ellipsis. To address these and other problems, it has been variously suggested that extrapolation occurs in the PF component [CITE], that it is a result of late adjunction (Fox and Nissenbaum, 1999), it is derived via leftward movements (Larson, 1988; Kayne, 2004, 2005), that it should be analyzed in terms of "parallel construal" (Koster, 2000), or that it results from a non-movement operation such as "scattered deletion" (Sheehan, 2010). Many of these works consider only subsets of the extrapolation phenomena, or propose radically different analyses for different subsets. Virtually all — with the notable and noble exception of Culicover and Rochemont (1990) — conclude that extrapolation phenomena require a significant departure from standard assumptions regarding phrase structure, movement and/or spellout.

Following C&R's lead, I will attempt to develop a "conservative" analysis of extrapolation phenomena which applies to extrapolation of adjunct and argument/complement DPs, PPs and CPs. The leading intuition is that extrapolation is, in all cases, exactly what it looks like – rightward overt displacement – and that

1. DESIDERATA FOR AN ANALYSIS OF EXTRAPOSITION

The following is a list of desiderata for a theory of extrapolation which it is probably fair to say that no current analysis (or combination of current analyses) comes close to meeting:¹

- A unified account of adjunct and complement extrapolation for PPs, DPs and clauses (or at least, a principled explanation of why different mechanisms are at work in different cases).
- No weird idiosyncratic operations (partial deletion, etc.)
- Compatible with a reasonably constrained theory of phrase structure and movement (little or no independent evidence for movement targeting right-adjoined positions).
- An account of the Right Roof Constraint.
- An explanation for why certain phrases which can't undergo A'-movement can nonetheless undergo extrapolation.

¹A note here spanning more than several lines i thin ,... fjdsf fsfsf

- An account of freezing effects:
 - (1) a. Who did you present an analysis of the problem to?
 - b. *Who did you present to an analysis of the problem?
- An account of the interaction between extraposition and scope.
- An account of the interaction of extraposition with binding phenomena (Condition C effects in particular).

This talk is an attempt to sketch a theory meeting these desiderata (with more of an emphasis on the ‘sketching’ part than the ‘meeting’ part).

2. WHY A UNIFIED ANALYSIS?

There are two dimensions to consider here:

(2)		DP	PP	CP
	Complement	Move α	Move α	Move α
	Adjunct	█	Move α	Move α

...

3. THE FREEZING PARADIGM

The application of extraposition within a VP tends to disrupt *wh*-movement out of that VP:

- (3) a. Who did you send a rough draft of your dissertation to *t*?
- b. I sent to my supervisor a rough draft of my dissertation.
- c. *Who did you send to *t* a rough draft of your dissertation?

Culicover and Rochemont (1990) propose that freezing effects are a species of intervention effect. The extraposed phrase extraposes to a right-adjoined position and acts as an intervener for subsequent *wh*-movement. A question that immediately arises is the direction of the intervention: C&R assume that the extraposed phrase blocks *wh*-movement, but in principle it could just as well be that *wh*-movement blocks extraposition. Argument/adjunct asymmetries may provide a clue to the correct answer here. As is well known, extraction of arguments over adjuncts is easier than extraction of arguments over arguments — (4) — and extraction of adjuncts over arguments and adjuncts is horrible in both

cases — (5):

- (4) a. ??What do you know who fixed?
b. ?What do you know how John fixed?
- (5) a. *How₁ did you ask who fixed the car *t*₁?
b. *How₁ did you ask why John fixed the car *t*₁?

Since both adjuncts and arguments can extrapose, we should be able to construct a similar paradigm for extraposition and compare judgments. In the following, I use relative/complement clauses to instantiate ...

RELATIVE VS. COMPLEMENT CLAUSES:

- (6) a. *Wh* = argument, *E* = adjunct
Who did you tell a rumour to that was frankly rather implausible?
- b. *Wh* = argument, *E* = complement
Who did you tell a rumour to that the President was going to resign?
- c. *Wh* = adjunct, *E* = adjunct
How often have you told a rumour to John that was frankly rather implausible.
- d. *Wh* = adjunct, *E* = complement
How often have you told a rumour to John that the President was going to resign?

NOMINAL ARGUMENT VS. ADJUNCT PPs:

- (7) a. *Wh* = argument, *E* = adjunct
Who did you give a picture to with a red frame?
- b. *Wh* = argument, *E* = argument
Who did you give a picture to of John?
- c. *Wh* = adjunct, *E* = adjunct
How often did you give a picture to Mary with a red frame?
- d. *Wh* = adjunct, *E* = complement
How often did you give a picture to Mary of John?

VERBAL ARGUMENT DPs:

- (8) a. *Wh* = argument, *E* = adjunct
Who did you give to a picture with a red frame?
- b. *Wh* = adjunct, *E* = argument

How often did you give to Mary a picture with a red frame?

The data are messy, but the overall indications seem to go against C&R's assumption that it is the extraposed phrase which blocks *wh*-movement. A fairly clear generalization that emerges from the paradigms above is that extraction of adjunct *wh* does not trigger strong freezing effects. This is what we could expect if the *wh*-phrase is an intervener for the extraposed phrase and not *vice versa*.²

- (9) a.
- (10) a. What did you give *t* to a man with a red hat?
b. *What did you give *t* to a man yesterday with a red hat?
- (11) a. What did you give to a man that you know well?
b. *What did you give *t* to a man yesterday that you know well?

Extraposition of complements leads to (at most) weak freezing effects:

- (12) a. Who did you persuade *t* that John likes?
b. Who did you persuade *t* yesterday that John likes?

4. FEEDING VS. BLEEDING OF CONDITION C EFFECTS

Adjunct extraposition bleeds Condition C:

- (13) a. *I gave him the picture that John likes best.
b. I gave him yesterday the picture that John likes best.
- (14) a. *I gave him an iPod with John's name engraved on it.
b. I gave him an iPod yesterday with John's name engraved on it.

Adjunct extraposition does not feed Condition C:

- (15) a. I gave a picture that Bill liked to him.
b. I gave a picture to him that Bill liked.
- (16) a. I gave an iPod with John's name engraved on it to him.
b. I gave an iPod to him with John's name engraved on it.

Complement extraposition does not bleed Condition C:

- (17) a. *I gave him an iPod with John's name engraved on it.

²What remains puzzling is that there is typically no strong freezing effect when both the *wh*-phrase and extraposed phrase are adjuncts (compare (5b)). This would be explained on Fox and Nissenbaum's (1999) account, since adjunct extraposition is effected via movement of an argument.

- b. *I gave him yesterday an iPod with John's name engraved on it.
- (18)
- a. *I gave him a picture of John's wedding.
 - b. *I gave him a picture yesterday of John's wedding.
- (19)
- a. *I said to him that John is an idiot.
 - b. *I said to him yesterday that John is an idiot.
- (20)
- a. *I told him a rumour that John is an idiot yesterday.
 - b. *I told him a rumour yesterday that John is an idiot.

Complement extraposition feeds Condition C:

- (21) ...

5. ALL OR NOTHING: STRANDING VS. RIGHTWARD DISPLACEMENT

If an adjunct and complement are extraposed from within the same DP, their respective order is free:

- (22)
- a. I gave the picture to John that he later hung on his wall of his mother's dog.
 - b. I gave a picture to John of his mother's dog that he later hung on his wall.

If complement extraposition were the result of stranding and adjunct extraposition the result of some form of rightward displacement (movement, parallel construal, etc.), (22a) would be inexplicable. We would expect that extraposed adjuncts should always appear to the right of extraposed complements. This observation appears to rule out "mixed" analyses of adjunct/complement extraposition. To explain the free ordering in, we must hold either that both adjunct and complement extraposition are the result of rightward displacement, or (perhaps) that both are the result of stranding. We can therefore argue as follows:

- (i) Either adjunct extraposition is stranding and complement extraposition is stranding, or adjunct extraposition is rightward displacement and complement extraposition is rightward displacement.
- (ii) Adjunct extraposition is clearly not stranding (see §6 below).
- (iii) From (i) and (ii): Both adjunct and complement extraposition are rightward displacement.

6. WHY STRANDING WON'T WORK FOR ADJUNCT EXTRAPOSITION

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Stranding also doesn't work as an analysis of complement extraposition.

Doesn't explain freezing effects.

- (23) a. ?A friend is expected to kiss Mary of John's.
b. *A friend is expected of John's to kiss Mary.

Connection between extraposition and wh-movability with take picture destroy picture sheehan 140-141.

7. THE BAN ON EXTRAPOSING P'S COMPLEMENT

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8. A LEFT ROOF CONSTRAINT?

- (24) a. John is difficult to like.
b. John is difficult to expect anyone to like.
c. ??John is difficult to argue that Mary should like.

9. REMNANT MOVEMENT VS. SIDEWARD MOVEMENT

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Culicover and Rochemont (1990):

- (25) a. *With what color hat did you see a man?
b. I saw a man yesterday with a red hat.

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