## How Can You Repair An Island By Destroying It?

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## I. Ellipsis and island violation repair

- I believe that he bit someone, but they don't know who (1)(I believe that he bit)
- (2) a \*I believe the claim that he bit someone, but they don't know who I believe the claim that he bit [Complex NP Constraint, noun complement]
  - b(??) I believe the claim that he bit someone, but they don't know who
- (3) a \*Irv and someone were dancing together, but I don't know who Irv and were dancing together [Coordinate Structure Constraint
  - b(??) Irv and someone were dancing together, but I don't know who
- (4) a \*She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends she kissed a man who bit [Complex NP Constraint, relative clause]
  - b(??) She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends
- (5)a \*That he'll hire someone is possible, but I won't divulge who that he'll hire is possible [Sentential Subject Constraint]
  - b (??)That he'll hire someone is possible, but I won't All above from Ross (1969) divulge who
- (6) Ross argues that the phenomenon of island violation repair provides "evidence of the strongest sort that the theoretical power of [global] derivational constraints is needed in linguistic theory..." [p.277]
- (7) If a node is moved out of its island, an ungrammatical sentence will result. If the island-forming node does not appear in surface structure, violations of lesser severity will (in general) ensue. [p.277]
- (8)a (\*)I don't know which children he has plans to send to college
  - b He has plans to send some of his children to college, but I don't know which ones Chomsky (1972)



(10)Chomsky rejects global derivational constraints, and suggests [see also Baker and Brame (1972), and, for an opposing view, Lakoff (1970), Lakoff (1972)] that \* (# in Chomsky's presentation) is assigned to an island when it is crossed by a movement operation (the complex NP in (9)). An output condition forbidding \* in surface structures accounts for the deviance of standard island violations.

- (11) If a later operation (Sluicing in this case) deletes a category containing the \*-marked item, the derivation is salvaged.
- For Chomsky (1972), the condition banning \* applies at (12)surface structure. The results are the same if, instead, it is a PF condition, as suggested by Lasnik (1995b), Lasnik (2001).
- Much more recently Chung et al. (1995) argue that the (13)amelioration of island effects with Sluicing follows from their account, in which there is no movement or deletion involved, but a type of LF copying.
- However, Merchant (1999), following Ross (1969), provides (14)very strong evidence that syntactic movement (and hence deletion) is involved in Sluicing constructions. The evidence involves:
- (15) 'Case matching': In overtly Case inflected languages (such as German), the Case of the remnant is just what the Case of the fronted WH expression would have been in the nonelliptical form, and this is even true in the island violation configurations.
- (16) Er will jemandem schmeicheln, aber sie wissen nicht, he wants someone.DAT flatter but they know not \*wer / \*wen / wem who.NOM who.ACC who.DAT 'He wants to flatter someone, but they don't know who.' Merchant, p.107
- (17) Sie will jemanden finden, der einem der Gefangenen she wants someone find who one.DAT of the prisoners geholfen hat, aber ich weiss nicht helped has but I know not \*welcher / \*welchen / welchem which.NOM which.ACC which.DAT

'She wants to find someone who helped one of the prisoners, but I don't know which.' Merchant, p.109

- (18) And preposition stranding: In languages that allow Pstranding (such as English), the remnant can be the bare object of a preposition; in languages that don't (such as Greek) it can't, and this is even true in the island violation configurations.
- (19) Peter was talking with someone, but I don't know who Merchant, p.111
- (20) Peter's mom will get angry if he talks with someone from his class, but I don't remember who
- (21) I Anna milise me kapjon, alla dhe ksero \*(me) pjon the Anna spoke with someone but not I.know with who
- (22) I mitera tou Giannis tha thimosi an milisi me kapjon the mom of Giannis FUT get.angry if he.talks with someone apo tin taksi tou, alla dhe thimame \*(me) pjon from the class his but not I.remember with who 'Giannis's mom will get angry if he talks with someone from his class, but I don't remember who.'
- (23) In Chomsky's approach, "a new element is introduced..." Lakoff (1972, p.81)
- (24) Thus, a possible technical argument, due to Kitahara (1999), against an approach like Chomsky's:
- (25) "... a \*-feature, which is not a lexical feature since it appears nowhere in the lexicon - ... enters into a derivation as the output of certain movements. ...this assumption violates the Inclusiveness Condition." p.79
- (26) Kitahara's alternative to \*-marking (for a related phenomenon):
- (27) An expression is marginally deviant if its derivation employs an MLC-violating application of Attract. p.80
- (28) Merchant (1999) explicitly rejects Chomsky's (1972) approach, on empirical grounds, because of instances of ...

## II. Failure of Island Violation Repair

- (29) \*They want to hire someone who speaks a Balkan language, but I don't know which they do [ $_{VP}$  want to hire someone who speaks t] Merchant (1999)
- (30) Compare (31), which also involves a relative clause island:
- (31) They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [<sub>IP</sub> they want to hire someone who speaks t] Merchant (1999)
- (32) In fact, Chung et al. (1995) had already claimed that Sluicing and VP ellipsis diverge in this way, concluding

that the latter, unlike the former, is an instance of deletion. Their example involved an adjunct island:

- (33) We left before they started playing party games. \*What did you leave before they did [ $_{v_P}$  start playing t]?
- (34) Note, though, that this case, unlike Merchant's, is actually consistent with Chomsky's account (which Chung et al. (1995) do not consider), as the island is not eliminated in (33), unlike the situation in (29).
- (35) Merchant, on the other hand, takes all ellipsis to be PF deletion, and argues that only some islands represent PF effects. Others, especially including relative clause islands, do not, and their violation therefore cannot be repaired by ellipsis.
- (36) (31) is then reanalyzed as:
- (37) They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [<sub>IP</sub> she should speak t] [See also Baker and Brame (1972)]
- (38) They hired someone who speaks a Balkan language -Guess which [she speaks t]
- (39) No-one moved to a certain town guess which! Merchant p.267
- (40) (39) has no island, so is unproblematic. But...
- (41) Noone had a student who worked on a certain Balkan language, but I can't remember which Balkan language [Lasnik (2000)]
- (42) There are also cases where structure that includes the island must exist in the Sluicing site in order to license an item in the Sluicing remnant:
- (43) Every linguist<sub>i</sub> met a philosopher who criticized some of his<sub>i</sub> work, but I'm not sure how much of his<sub>i</sub> work [every linguist<sub>t</sub> met a philosopher who criticized t]
- (44) Each of the linguists met a philosopher who criticized some of the other linguists, but I'm not sure how many of the other linguists
- (45) !How many of the other linguists did the philosopher criticize
- (46) Some of Merchant's PF islands: COMP-trace effects; derived positions (topicalizations, subjects)
- (47) It appears that a certain senator will resign, but which senator [it appears that t will resign] is still a secret [adapted from Merchant p.219]
- (48) Sally asked if somebody was going to fail Syntax One, but I can't remember who [Sally asked if t was going to fail Syntax One] Merchant p.219, from Chung et al. (1995)

- (49) She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which [she said that a biography of t is going to be published this year] [adapted from Merchant p.220]
- (50) Recall the apparent failure of island violation repair with Merchant's non-PF island:
- (51) \*They want to hire someone who speaks a Balkan language, but I don't know which they do  $[_{\rm VP} \ {\rm want \ to \ hire \ someone \ who \ speaks \ t}]$
- (52) But, surprisingly, we find the same apparent failure of repair with Merchant's PF islands [Lasnik (2000)]:
- (53) \*It appears that a certain senator will resign, but which senator it does [appear that t will resign] is still a secret [that-trace]
- (55) \*She said that a biography of one of the Marx brothers is going to be published this year, but I don't remember which she did [say that a biography of t is going to be published this year] [subject condition]
- (56) And now notice that parallel 'failure of repair' obtains even when there was no violation in the first place.
- (57) Extraction out of an embedded clause is typically fine and Sluicing is just as good, but VPE is bad:
- (58) They said they heard about a Balkan language, but I don't know which Balkan language they said they heard about
- (59) They said they heard about a Balkan language, but I don't know which Balkan language
- (60) \*They said they heard about a Balkan language, but I don't know which Balkan language they did
- (61) Similarly for extraction out of an object NP:
- (62) They heard a lecture about a Balkan language, but I don't know which Balkan language they heard a lecture about
- (63) They heard a lecture about a Balkan language, but I don't know which Balkan language
- (64) \*They heard a lecture about a Balkan language, but I don't know which Balkan language they did
- (65) Even short movement of a direct object shows rather similar behavior:
- (66) They studied a Balkan language but I don't know which Balkan language they studied
- (67) They studied a Balkan language but I don't know which Balkan language
- (68) ??They studied a Balkan language but I don't know which

Balkan language they did

- (69) Is VPE blocked when Sluicing is available (Sort of 'Delete as much as you can')?
- (70) Someone solved the problem.
  Who (?did)?
- (71) Is a VPE site precluded from containing a WH trace?
- (72) I know what I like and what I don't Merchant p.69 [See Fiengo and May (1994) for similar examples.]
- III. Towards a Solution [This section is based on joint work
   with Danny Fox]
- (73) The constraint seems to be specific to VPE, and seems limited specifically to circumstances where an indefinite antecedes a WH-trace. In fact, in other circumstances, VPE can even repair actual island violations:
- (74) \*[How interesting] did Brio write [a t novel]
- (75)a Pico wrote a more interesting novel than Brio did
- b Pico wrote a more interesting novel than [Op Brio did write a t novel] Kennedy and Merchant (2000)
- (76) For the ill-formed VPE cases above, which contrasted with the Sluicing examples, I will show how the fact that VPE deletes a smaller portion of the structure than Sluicing (IP ellipsis) could be relevant.
- (77) But first, a prior question: Why can an indefinite antecede a WH-trace?
- (78)a An old idea: a WH expression combines an interrogative and an indefinite. (See, for example, Stockwell et al. (1973, p.606))
  - b The 'trace' is the indefinite.
- (79) Fred said that Mary talked to a certain girl, but I don't know which girl <<del>Fred said that Mary talked to t</del>>
- (80) The Parallelism required for ellipsis is satisfied since the variables in the antecedent and the elided clause are bound by parallel operators and from parallel positions.
- (81) Now notice that in the structure, there are no intermediate traces in the elided portion (in angle brackets), indicating that there were no intermediate landing sites in the movement.
- (82) If there had been successive movement, under plausible assumptions the relevant portions of the antecedent and the ellipsis site would not be parallel, and this would prevent ellipsis.

- (83)a This seems to be problematic under the assumption that successive cyclic movement is required by considerations of locality.
  - b But as discussed earlier, considerations of locality are nullified under deletion (island repair).
- (84) But why is there no 'repair' with VPE?
- (85) VPE involves deletion of a smaller constituent than the clause that is elided in sluicing (VP vs. TP):
- (86) which girl  $[_{TP}$  he T  $[_{AspP}$  did  $<_{VP}$  say that I talked to g(girl) > ]
- (87) \*Fred said that Mary talked to a certain girl, but I don't know which girl he did
- (88) The unacceptability of VPE follows if we assume that one of the two remaining maximal projections, AspP or TP, is an 'island' that must be circumvented by adjunction or repaired by deletion. [This roughly follows the claim of Chomsky (1986) that all XPs are potential barriers.] Since the island is not deleted, the escape hatch is required, and a violation of Parallelism is unavoidable, assuming that movement is not allowed to proceed in one long 'island-violating' step followed by short successive steps. (Metaphorically, when you enter the subway, you must choose the express or the local.)
- (89) This line of reasoning immediately extends to the badness of the classic island situations discussed by Merchant.
- (90) Since this account of the contrast between VPE and sluicing relies crucially on the fact that there is movement in the elided constituent but not in the antecedent constituent, a prediction is that if the antecedent clause is replaced with a clause that involves movement, both VPE and sluicing would be possible.
- (91)a I know which book John said that Mary read, but YOU don't know which one
  - b ?I know which book John said that Mary read, but YOU don't know which one he did.
- (92) Compare:
- (93)a I know that John said that Mary read a certain book, but I don't know which one.
  - b \*I know that John said that Mary read a certain book, but I don't know which one he did.
- (94) The somewhat less degraded status of very short movement cases such as (68) can now possibly be explained in terms of Pseudogapping (a variant of VPE where a remnant is first raised out of the inner VP in a shell structure, and that inner VP is deleted). The WH-trace can be completely outside of the ellipsis site. If I am right

that the raising of the remnant is A-movement, it follows that long distance instances will not be possible.

(95) [<sub>CP</sub> which Balkan language [<sub>TP</sub> they T [<sub>AspP</sub> did [<sub>VP</sub>  $t_{they}$  [<sub>AgrP</sub>  $t_{Wh}$  [<sub>VP</sub> study t]]]]] Lasnik (1995a)



- (97) (?) Mary studied Bulgarian and John did Macedonian
- (98) Finally (and most speculatively) it is generally very difficult to get 'long distance' readings of wh-adjuncts in Sluicing constructions:
- (99) Mary left sometime, but Bill doesn't know [<sub>CP</sub> when [<sub>IP</sub> Mary left t]]
- (100)?\*John claimed that Mary left sometime, but Bill doesn't
  know [cp when [IP John claimed [that Mary left t]]]
- (101) John left for some reason, but I don't know [cp why [IP John left t]]
- (102)?\*Mary claimed that John left for some reason, but I don't know [cp why [Ip Mary claimed [that John left t]]]
- (103) This will follow on the theory of Lasnik and Saito (1984;1992) that the locality constraints on adjuncts (unlike those on arguments) must be satisfied at LF. Thus, PF deletion will be of no avail.

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