Section 2
Sluicing 2 [Island violation repair]

I. Ellipsis and island violation repair

A. The classic paradigm

(121) I believe that he bit someone, but they don't know who (I believe that he bit)

(122a) *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]

(122b) I believe the claim that he bit someone, but they don't know who

(123a) Irv and someone were dancing together, but I don't know who Irv and were dancing together [Coordinate Structure Constraint]

(123b) Irv and someone were dancing together, but I don't know who

(124a) *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]

(124b) She kissed a man who bit one of my friends, but Tom doesn't realize which one of my friends

(125a) *That he'll hire someone is possible, but I won't divulge who that he'll hire is possible [Sentential Subject Constraint]

(125b) That he'll hire someone is possible, but I won't divulge who

All above from Ross (1969)

(126) 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]

(127) 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]

(128a) (*)I don't know which children he has plans to send to college

(128b) He has plans to send some of his children to college, but I don't know which ones Chomsky (1972)

(129) I don't know CP

| NP
| IP
| which children NP
| he I VP
| V NP*
| has plans to send t to college
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 (129)). An output condition forbidding * in surface structures accounts for the deviance of standard island violations.

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 surface structure. The results are the same if, instead, it is a PF condition, as suggested by Lasnik (1995c), Lasnik (2001a).

### B. Possible approaches not requiring repair

Someone just left - guess who it was    ['Pseudosluicing' (something like clefting)]

Irv and someone were dancing together, but I don't know who it was

There is no island to repair on this copular analysis.

Merchant raises the question of the ultimate source of the copular sentences, and suggests that they are actually reduced forms of clefts with an extracted wh-phrase as pivot, as in:

But on such an account, Pseudosluicing actually wouldn't address the basic phenomenon at issue - lack of island effects - since as has been known since {Ross, 1967 #489}, clefts obey all the same island constraints as wh-interrogatives do

At any rate, Merchant argues convincingly that Pseudosluicing in any form cannot provide a general analysis for the Sluicing phenomenon, hence cannot provide a general answer to the repair problem.

In German, PPs can be 'survivors' of Sluicing, but can’t be pivots of clefts:

*Mit wem war es, daß er gesprochen hat? with who was it that he spoken has

*Er hat mit jemandem gesprochen - rate mal mit mit wem! He has with someone spoken - guess PRT with who

Further, crucially, PPs can be survivors even in island contexts.

Anke wird sich ärgern, wenn Peter mit einem der Lehrer
Anke will REFL upset if Peter with one of the teachers
spricht, aber ich weiß nicht mehr, *(mit) welchem.
speaks but I know not more with which
‘Anke will get upset if Peter talks to with one of his teachers, but I don’t remember which.’

Romanian seems to have no cleft constructions at all, but still has Sluicing.
(146) *E Io\(e/c\) care a cîştigat premiul întii
is Io\(n\) that/\(w\)ho \(h\)as won prize.\(t\)he \(f\)\(i\)rst

‘It’s Io\(n\) that \(w\)on \(f\)irst \(p\)\(r\)ize.’

(147) *E Ion pe care \(l\)- am întîlnit ieri
is Io\(n\) ACC \(w\)ho him- \(h\)ave.\(1\sg\) met \(y\)esterday

‘It’s Io\(n\) who I met \(y\)esterday’

(148) Cine-va a cîştigat premiul întii – ghici cine!
someone has won prize.\(t\)he \(f\)\(i\)rst \(g\)\(u\)ess \(w\)ho

‘Someone won first prize – guess \(w\)ho!’

(149) Chung et al. (1995) argue that the 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.
(150) However, Merchant (2001), following Ross (1969), provides strong
evidence that syntactic movement (and hence deletion) is involved
in Sluicing constructions. The evidence involves:

(151) 'Case matching': In overtly Case inflected languages (such as
German), the Case of the survivor is just what the Case of the
fronted WH expression would have been in the non-elliptical form,
and this is even true in the island violation configurations.

(152) Er will jemandem schmeicheln, aber \(s\)ie wissen nicht,
\(h\)e wants someone.DAT flatter \(b\)ut \(t\)hey know \(n\)ot
*wer / *wen / wem
\(w\)ho.NOM \(w\)ho.ACC \(w\)ho.DAT

‘He wants to flatter someone, but they don't know \(w\)ho.’

Merchant, p.107

(153) Sie will jemanden finden, \(d\)er einem der Gefangenen
\(s\)he wants someone \(f\)\(i\)nd \(w\)\(h\)o one.DAT \(\o\)f \(t\)he prisoners
\(g\)holfen hat, aber ich weiss nicht
\(h\)elped \(h\)\(a\)s \(b\)\(u\)t \(i\) know \(n\)ot
*welcher / *welchen / welchem
\(w\)hich.NOM \(w\)hich.ACC \(w\)hich.DAT

‘She wants to find someone who helped one of the prisoners, but
I don't know \(w\)hich.’

Merchant, p.109

(154) And preposition stranding: In languages that allow P-stranding
(such as English), the survivor can be the bare object of a
preposition; in languages that don't (such as Greek) it can't,
and, crucially, this is even true in the island violation
configurations. [Big remaining question: Why can't P-stranding
violations be repaired by ellipsis?]

(155) Peter was talking with someone, \(b\)ut \(i\) don't know \(w\)ho

Merchant, p.111

(156) Peter's mom will get angry if \(h\)e talks with someone from his
\(c\)lass, \(b\)ut \(i\) don't remember \(w\)ho
Anna spoke with someone but not I know with who. The mom of Giannis get angry if he talks with someone from his class but I don't remember who.

So there is island violation repair. Maybe along the lines of Chomsky (1972)? Possible problem: In Chomsky's approach, "a new element is introduced..." Lakoff (1972, p.81)

Kitahara (1999) gives an argument reminiscent of Lakoff's against an approach like Chomsky's (though for a slightly different phenomenon - ECP reduction to mere Subjacency via deletion of *-marked trace):

"... 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

Kitahara's alternative to *-marking (for the related phenomenon mentioned just above):

An expression is marginally deviant if its derivation employs an MLC-violating application of Attract. p.80

But how is that marginal deviance represented?

What won't work: Send the deviance information to the interface(s) immediately. This would predict that there is never repair.

Technical solution to the Inclusiveness problem: Everything is 'born' with a ✓. When a violation occurs, the ✓ is erased. A representation with an item lacking a ✓ is unacceptable.

Merchant (2001) gives an empirical argument against Chomsky's (1972) approach, based on instances of:

II. Failure of island violation repair

*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 (2001)

Compare (171), which also involves a relative clause island:

They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [if they want to hire someone who speaks t] Merchant (2001)

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:

We left before they started playing party games.

*What did you leave before they did* [vp start playing t]?
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 (173), unlike the situation in (169).

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, are LF constraints, and their violation therefore cannot be repaired by ellipsis, a PF process.

(176) (171) is then reanalyzed as:

(177) They want to hire someone who speaks a Balkan language, but I don't know which (Balkan language) [If she should speak t]

[See also Baker and Brame (1972)]

(178) They hired someone who speaks a Balkan language - Guess which [she speaks t]

No-one moved to a certain town - guess which! Merchant p.267

(179) (179) has no island, so is unproblematic. But...

(180) Noone had a student who worked on a certain Balkan language, but I can't remember which Balkan language Lasnik (2001d)

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:

(181) Every linguist met a philosopher who criticized some of his work, but I'm not sure how much of his work [every linguist met a philosopher who criticized t]

(182) 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

(183) !How many of the other linguists did the philosopher criticize

Consider now Merchant's PF islands: COMP-trace effects; derived positions (topicalizations, ?subjects)

(184) 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]

(185) 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)

(186) 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]

(187) Recall the apparent failure of island violation repair with Merchant's LF island:

(188) *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]
Surprisingly, we find the same apparent failure of repair with Merchant’s PF islands [Lasnik (2001)]:

*It appears that a certain senator will resign, but which senator it does [appear that t will resign] is still a secret [that-trace]

*Sally asked if somebody was going to fail Syntax One, but I can't remember who she did [ask if t was going to fail Syntax One] [if-trace]

*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]

And now notice that parallel 'failure of repair' obtains even when there was no violation in the first place.

Extraction out of an embedded clause is typically fine and Sluicing is just as good, but VPE is bad:

They said they heard about a Balkan language, but I don't know which Balkan language they said they heard about

They said they heard about a Balkan language, but I don't know which Balkan language

*They said they heard about a Balkan language, but I don't know which Balkan language they did

Similarly for extraction out of an object NP:

They heard a lecture about a Balkan language, but I don't know which Balkan language they heard a lecture about

They heard a lecture about a Balkan language, but I don't know which Balkan language

*They heard a lecture about a Balkan language, but I don't know which Balkan language they did

Even short movement of a direct object shows rather similar behavior:

They studied a Balkan language but I don't know which Balkan language they studied

They studied a Balkan language but I don't know which Balkan language

??They studied a Balkan language but I don't know which Balkan language they did

Is VPE blocked when Sluicing is available (Sort of 'Delete as much as you can')?

Someone solved the problem. Who (?did)?

Is a VPE site precluded from containing a WH trace?

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 Fox and Lasnik (2003)]

(213) 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:

(214) *[How interesting] did Brio write [a t novel]
(215) a Pico wrote a more interesting novel than Brio did

(216) For the ill-formed VPE cases above, which contrasted with the Sluicing examples, the fact that VPE deletes a smaller portion of the structure than Sluicing (IP ellipsis) could be relevant.

(217) But first, a prior question: Why can an indefinite antecede a WH-trace?

(218) a An old idea: a WH expression combines an interrogative and an indefinite. (See, among many other references, Stockwell et al. (1973, p.606)
    b The 'trace' is the indefinite.

(219) Fred said that Mary talked to a certain girl, but I don't know which girl <Fred said that Mary talked to t>

(220) Suppose, following Chung et al. (1995), that the indefinite must be bound by existential closure in a way that is parallel to the wh-dependency in the sluiced clause

(221) And suppose, contra Merchant (2001), that formal parallelism is required for ellipsis. This is satisfied since the variables in the antecedent and the elided clause are bound by parallel operators and from parallel positions. [The verbal morphology facts discussed in Section 1, Section IV support the idea that some kind of formal identity is required for ellipsis.]

(222) Now notice that in the structure shown, there are no intermediate traces in the elided portion (in angle brackets), indicating that there were no intermediate landing sites in the movement.

(223) 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.
(224) 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, as in the proposal of Chomsky (1972) or Lasnik (2001a)).

(225) But why is there no 'repair' with VPE?
(226) VPE involves deletion of a smaller constituent than the clause that is elided in sluicing (VP vs. TP):

(227) which girl [TP he T [AspP did <VP say that I talked to g(girl)>]]
(228) *Fred said that Mary talked to a certain girl, but I don't know which girl he did

(229) 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 (1986a) that all XPs are potential barriers.] Since the island is not deleted, the escape hatch is required, and a violation of Parallelism is unavoidable.

(230) An interesting consequence of this line of analysis: Movement must not be allowed to proceed in one long 'island-violating' step followed by short successive steps. If this were allowed, the ellipsis site could lack any intermediate traces, making it parallel to its antecedent. And the undeleted portion could be free of *s.

(231) Metaphorically, when you enter the subway, once you have chosen the express, you can't switch to a local train at a local stop.

(232) This line of reasoning straightforwardly covers the badness of the classic island situations discussed by Merchant.

(233) 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.

(234) 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.

Compare:
(235) 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.
(236) Now recall the somewhat less degraded status of very short movement cases such as (208), repeated here:

(237) ??They studied a Balkan language but I don't know which Balkan language they did

(238) This can now plausibly be explained in terms of Pseudogapping. The WH-trace can be completely outside of the ellipsis site, so parallelism is not at issue for it. If I am right that the raising of the Pseudogapping survivor is A-movement, it follows that long distance instances will not be possible.

(239) [[CP which Balkan language [TP they T [AspP did [VP t_they [AgrP t_wh [VP study t]]]]]]]

Lasnik (1995b)

(240)

\[\begin{array}{c}
\text{VP} \\
\text{t_they} \\
\text{V'} \\
\text{V} \\
\text{AgrP} \\
\text{t_wh} \\
\text{Agr'} \\
\text{Agr} \\
\text{VP} \\
\text{study t}
\end{array}\]

(241) (?)Mary studied Bulgarian and John did Macedonian

(242) Finally (and most speculatively) violations of island constraints with wh-movement of adjuncts cannot be repaired.

(243) A student solved the problem (somehow), but I'm not sure exactly how

(244) *Mary met a student who solved the problem (somehow), but I'm not sure exactly how

(245) *That Susan will solve the problem (somehow) is unclear, and I think I know how

(246) This will follow on the theory of Lasnik and Saito (1984), Lasnik and Saito (1992) that the locality constraints on adjuncts (unlike those on arguments) must be satisfied at LF. Thus, PF deletion will be of no avail.

(247) In fact, as Benjamin Bruening observes, it is generally very difficult to get 'long distance' readings of wh-adjuncts in Sluicing constructions altogether:

(248) John left (for some reason), but I don't know [[CP exactly why [IP John left t]]]

(249) ??*Mary claimed that John left (for some reason), but I don't know [[CP exactly why [IP Mary claimed [that John left t]]]]

(250) ??*Bob thinks that Mary fixed the car (somehow) but I don't know exactly how [[IP Bob thinks that Mary fixed the car t]]
(251) This too could generally follow from the Lasnik-Saito approach to locality, though some details would have to be reconsidered. I abstract away from those details here.

IV. Long A-movement and VP ellipsis

(252) *Susan thought Mary studied Bulgarian and John did think Mary studied Macedonian

(253) Myung-Kwan Park asks "Why can't the 'long' movement of Macedonian in (252) be repaired by ellipsis?"

(254) A-movement from a Case checking position is barred.

(255) We must "prevent a nominal phrase that has already satisfied the Case Filter from raising further to do so again in a higher position." Chomsky (1986b, p.280)

(256) "...a [-Interpretable] feature is 'frozen in place' when it is checked, Case being the prototype." Chomsky (1995b, p.280)

(257) *my belief [John to seem [t is intelligent]]

(258) "... a visible Case feature ... makes [a] feature bundle or constituent available for 'A-movement'. Once Case is checked off, no further [A-]movement is possible." Lasnik (1995c, p.16)

(259) "If uninterpretable features serve to implement operations, we expect that it is structural Case that enables the closest goal G to select P(G) to satisfy EPP by Merge. Thus, if structural Case has already been checked (deleted), the phrase P(G) is "frozen in place," unable to move further to satisfy EPP in a higher position. More generally, uninterpretable features render the goal active, able to implement an operation: to select a phrase for Merge (pied-piping) or to delete the probe." Chomsky (2000, p.123)

(260) Pseudogapping is A-movement of the survivor (to Spec of Agr_o) followed by VP ellipsis.

(261) Object shift is optional in English. (More on this below.) Hence [v V DP] must be a Case checking configuration.

(262) 'Long' Pseudogapping involves impossible A-movement from a Case position. This is not an island violation.

(263) But what of 'short' Pseudogapping? How can the survivor ever escape from the elided VP?

(264) "... all operations within the phase are in effect simultaneous." Chomsky (2001)