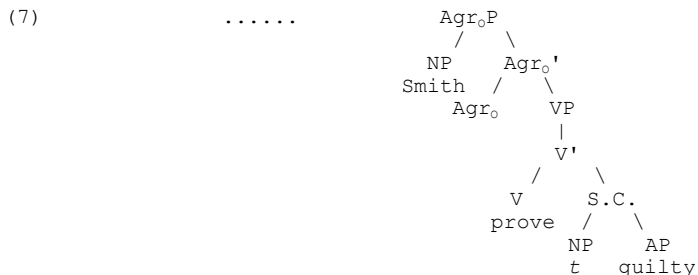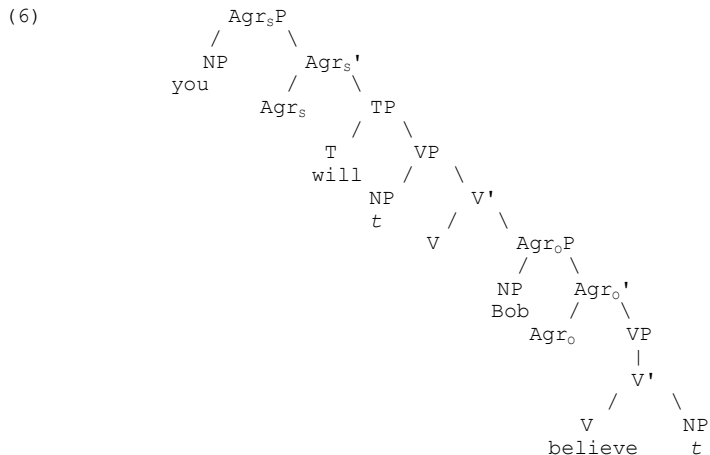## When Can You Save a Structure by Destroying It?

Howard Lasnik
University of Connecticut
lasnik@sp.uconn.edu
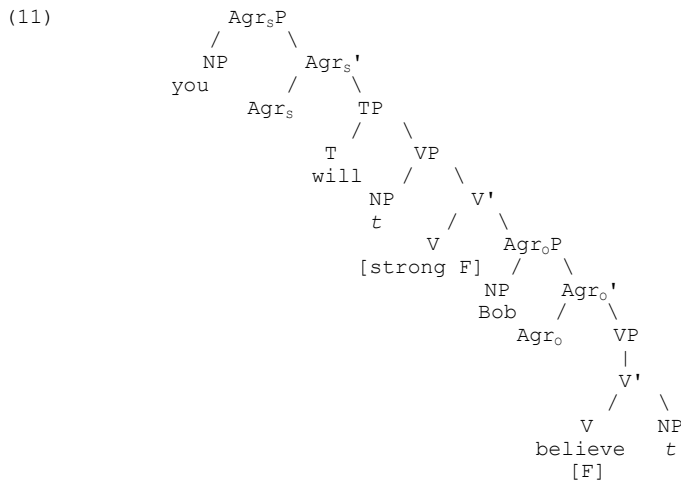
I. Strong features, defective PF objects, and ellipsis

A. Pseudogapping and V Raising

(1)a   If you don't believe me, you will ø the weatherman
  b   I rolled up a newspaper, and Lynn did ø a magazine
  c   Kathy likes astronomy, but she doesn't ø meteorology
      Levin (1978)

(2)a   The DA proved Jones guilty and the Assistant DA will
      ~~prove~~ Smith ~~guilty~~
  b   ?John gave Bill a lot of money, and Mary will ~~give~~ Susan
      ~~a lot of money~~

(3)   You might not believe me but you will Bob

(4)   NP-raising to Spec of Agr_o ('Object Shift') is overt in
      English. [Koizumi (1993); Koizumi (1995), developing
      ideas of Johnson (1991)]

(5)   Pseudogapping as overt raising to Spec of Agr_o (driven by
      an EPP requirement of Agr) followed by deletion of VP.
      [Lasnik (1995a)]

(6)
```
          Agr_sP
         /    \
       NP     Agr_s'
       you   /    \
          Agr_s    TP
                  /  \
                 T    VP
               will  /  \
                    NP    V'
                    t    /   \
                        V     Agr_oP
                             /    \
                            NP    Agr_o'
                           Bob   /    \
                             Agr_o    VP
                                      |
                                      V'
                                     /   \
                                    V     NP
                                  believe  t
```

(7)
```
......              Agr_oP
                   /    \
                 NP     Agr_o'
                Smith  /    \
                   Agr_o    VP
                            |
                            V'
                           /  \
                          V    S.C.
                        prove  /  \
                              NP    AP
                              t    guilty
```

(8)   *You will Bob believe
(9)   *The Assistant DA will Smith prove guilty

(10)   V raising is normally obligatory driven by a strong
      feature of the 'shell' V.

(11)
```
           Agr_sP
          /    \
        NP     Agr_s'
        you   /    \
          Agr_s    TP
                  /  \
                 T    VP
               will  /  \
                    NP    V'
                    t    /   \
                        V     Agr_oP
                  [strong F]  /   \
                            NP    Agr_o'
                           Bob   /   \
                             Agr_o    VP
                                      |
                                      V'
                                     /   \
                                    V     NP
                                 believe   t
                                   [F]
```
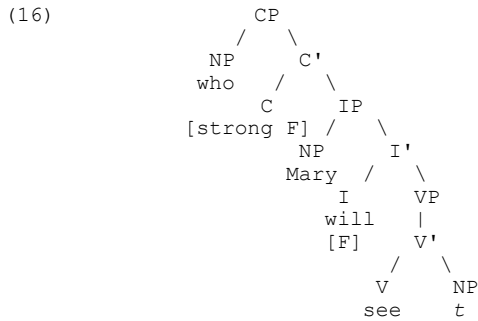
(12)   Once the matching feature of the lower lexical V is
      'attracted', the lower V becomes phonologically
      defective. A PF crash will be avoided if either pied-
      piping (normal V raising) or deletion of a category
      containing the lower V (VP Deletion = Pseudogapping in
      the relevant instances) takes place. [Lasnik (1999),
      developing an idea of Ochi (1999)]

B. Sluicing and Infl Raising

(13)   Sluicing - WH-Movement followed by deletion of IP
      (abstracting away from 'split Infl' details). [Ross
      (1969), Saito and Murasugi (1990), Lobeck (1990)]
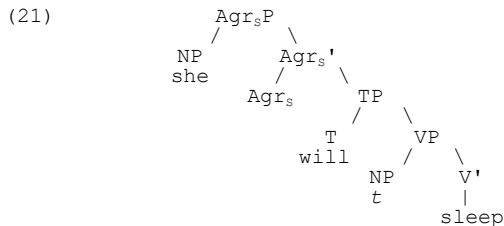
(14)   Speaker A: Mary will see someone.

```
         Speaker B:  I wonder who M̶a̶r̶y̶ ̶w̶i̶l̶l̶ ̶s̶e̶e̶.

(15)     Speaker A:  Mary will see someone.
         Speaker B:  Who M̶a̶r̶y̶ ̶w̶i̶l̶l̶ ̶s̶e̶e̶?

(16)              CP
                /   \
              NP     C'
             who    /  \
                   C    IP
             [strong F] / \
                      NP    I'
                     Mary  /  \
                         I    VP
                        will   |
                        [F]    V'
                              /  \
                             V    NP
                            see    t
```
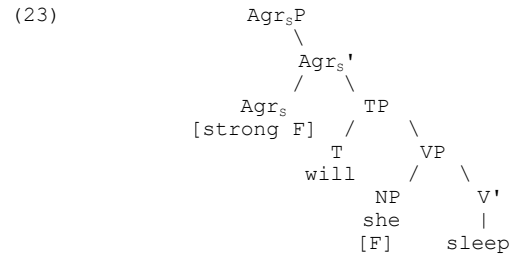
(17)   *Who Mary will see?
(18)   Who will Mary see?

(19)   In matrix WH interrogatives, Infl raising to C is
         normally obligatory driven by a strong feature of the
         interrogative C.

(20)   Assume that the matching feature of Infl raises overtly
         to check the strong feature of C. This leaves behind a
         phonologically defective Infl, which will cause a PF
         crash unless either pied-piping (Infl raising to C) or
         deletion of a category containing that Infl (Sluicing)
         takes place.

II. Failure of Repair: The EPP

```
(21)            Agr_sP
              /    \
            NP      Agr_s'
           she     /   \
                 Agr_s   TP
                       /  \
                      T    VP
                    will  /  \
                        NP    V'
                         t     |
                             sleep
```

(22)   Mary said she won't sleep, although she will s̶l̶e̶e̶p̶

```
(23)            Agr_sP
                  \
                  Agr_s'
                 /   \
             Agr_s    TP
          [strong F] /   \
                    T     VP
                  will   /  \
                       NP    V'
                      she     |
                      [F]   sleep
```

(24)   *Mary said she won't sleep, although will s̶h̶e̶ ̶s̶l̶e̶e̶p̶
(25)   Why isn't deletion of a category containing the
         'defective' item a viable alternative to pied-piping in
         this instance?

(26)   What is the EPP?
(27)   A certain head high in the clause has a strong feature,
         demanding overt movement for checking.   Chomsky (1995)
(28)   Certain heads require Spec's. Chomsky (2000); Chomsky
         (1981)

(29)   Agr (or T) requires a Spec. It does not suffice to check
         its 'EPP feature'.

(30)   A possible alternative approach to the dichotomy: Boeckx
         and Stjepanovic (In press) suggest that the true general-
         ization involves head movement, where ellipsis does
         provide an alternative to raising, vs. XP movement, where
         it doesn't.
(31)   The derivational decision to pied-pipe involves consid-
         erable 'look-ahead' since the adverse effects of bare
         feature movement are not evident until PF, where deletion
         operates. If head movement is a PF process, the interac-
         tion is at least confined to one component. Conversely,
         if XP movement is syntactic, potential interaction be-
         tween full movement and deletion would be across the
         Spell-out divide, thus involving look-ahead of a much
         greater degree.

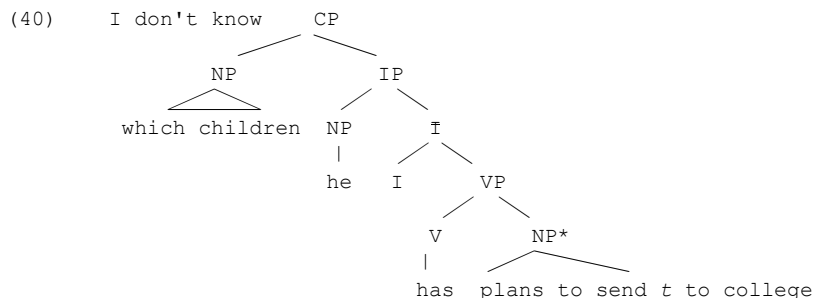## III. Ellipsis and island violation repair

(32)   I believe that he bit someone, but they don't know who
          (I believe that he bit)
(33)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
(34)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
```

(35)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
(36)a   *That he'll hire someone is possible, but I won't di-
        vulge who that he'll hire is possible  [Sentential Sub-
        ject Constraint]
    b  (??)That he'll hire someone is possible, but I won't
        divulge who           All above from Ross (1969)

(37)  Ross argues that the phenomenon of island violation repair
      provides "evidence of the strongest sort that the theo-
      retical power of [global] derivational constraints is
      needed in linguistic theory..." [p.277]
(38)  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]

(39)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)

(40)    I don't know    CP
                       /    \
                    NP        IP
                   /  \      /   \
          which children  NP      Ī
                          |      / \
                          he    I   VP
                              /    /  \
                             V       NP*
                             |      /    \
                            has  plans to send *t* to college

(41)   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
       (40)).  An output condition forbidding * in surface
       structures accounts for the deviance of standard island
       violations.
(42)   If a later operation (Sluicing in this case) deletes a
       category containing the *-marked item, the derivation is
       salvaged.
(43)   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 (1995b),
       Lasnik (2001).

(44)   Much more recently 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 sort of LF copying.
(45)   However, Merchant (1999), following Ross (1969), provides
       very strong evidence that syntactic movement (and hence
       deletion) is involved in Sluicing constructions.  The
       evidence involves:
(46)   '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 non-
       elliptical form, and this is even true in the island
       violation configurations.
(47)   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
(48)   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

(49)   And preposition stranding: In languages that allow P-
       stranding (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.
(50)   Peter was talking with someone, but I don't know who
                                             Merchant, p.111
(51)   Peter's mom will get angry if he talks with someone from
       his class, but I don't remember who

(52)   I   Anna milise me   kapjon, alla dhe ksero *(me) pjon
       the Anna spoke  with someone but  not I.know with who
(53)   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.'

(54)   In Chomsky's approach, "a new element is introduced..."
                                       Lakoff (1972, p.81)
(55)   Thus, a possible technical argument, due to Kitahara
       (1999), against Chomsky's approach:

(56) "... 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

(57) Kitahara's alternative:
(58) An expression is marginally deviant if its derivation
      employs an MLC-violating application of Attract.  p.80

(59) Merchant (1999) rejects Chomsky's (1972) approach on
      empirical grounds, because of instances of ...

## IV. Failure of Island Violation Repair

(60) *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)
Compare
(61) They want to hire someone who speaks a Balkan language,
      but I don't know which (Balkan language) [$_{IP}$ ~~they want to~~
      ~~hire someone who speaks t~~]          Merchant (1999)

(62) 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.

(63) We left before they started playing party games.
      *What did you leave before they did [$_{VP}$ ~~start playing t~~]?

(64) Note, though, that this case is consistent with Chomsky's
      account (which Chung et al. (1995) apparently do not
      consider), as the adjunct island is not eliminated in
      (63), unlike the situation in (60).

(65) Merchant, on the other hand, takes all ellipsis to be PF
      deletion (as far as I can tell), 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.

(66) (61) is then reanalyzed as:
(67) They want to hire someone who speaks a Balkan language,
      but I don't know which (Balkan language) [$_{IP}$ ~~she should~~
      ~~speak t~~]                [See also Baker and Brame (1972)]

(68) They hired someone who speaks a Balkan language –
      Guess which [~~she speaks t~~]

(69) Noone had a student who worked on a certain Balkan
      language, but I can't remember which Balkan language
(70) No-one moved to a certain town – guess which!   Merchant
      p.267

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

(72) 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

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

(74) Some of Merchant's PF islands: COMP-trace effects; derived
      positions (topicalizations, subjects)

(75) 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]

(76) 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)

(77) 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]

(78) *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~~]

(79) *It appears that a certain senator will resign, but which
      senator it does [~~appear that t will resign~~] is still a
      secret

(80) *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~~]

(81) *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~~]

(82) *They want to hear a lecture about a Balkan language, but I
      don't know which (Balkan language) they do
(83) They want to hear a lecture about a Balkan language, but I
      don't know which (Balkan language) they want to hear a
      lecture about

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

(85)   Is VP ellipsis blocked when Sluicing is available (Sort of
       'Delete as much as you can')?
(86)   Someone solved the problem.
       Who (?did)?

(87)   Is a VP ellipsis site precluded from containing a
       variable?
(88)   I know what I like and what I don't    Merchant p.69 [See
       Fiengo and May (1993) for similar examples.]

(89)   The constraint seems to be specific to VP ellipsis and
       seems limited specifically to circumstances where an
       indefinite antecedes a WH-trace.  The nature of this
       constraint remains obscure.

## References

Baker, C. L., and Michael Brame. 1972. 'Global rules': A
       rejoinder. *Language* 48: 51-75.
Boeckx, Cedric, and Sandra Stjepanovic. In press. Head-ing
       towards PF. *Linguistic Inquiry* 32.
Chomsky, Noam. 1972. Some empirical issues in the theory of
       transformational grammar. In *Goals of linguistic theory*,
       ed. Paul Stanley Peters. Englewood Cliffs: Prentice-Hall
       Inc.
Chomsky, Noam. 1981. *Lectures on government and binding*.
       Dordrecht: Foris.
Chomsky, Noam. 1995. Categories and transformations. In *The
       minimalist program*, 219-394. Cambridge, Mass.: MIT Press.
Chomsky, Noam. 2000. Minimalist inquiries: the framework. In *Step
       by step: Essays on minimalist syntax in honor of Howard
       Lasnik*, ed. Roger Martin, David Michaels, and Juan
       Uriagereka, 89-155. Cambridge, Mass.: MIT Press.
Chung, Sandra, William Ladusaw, and James McCloskey. 1995.
       Sluicing and Logical Form. *Natural Language Semantics* 3:
       1-44.
Fiengo, Robert, and Robert May. 1993. *Indices and identity*.
       Cambridge, Mass.: MIT Press.
Johnson, Kyle. 1991. Object positions. *Natural Language and
       Linguistic Theory* 9: 577-636.
Kitahara, Hisatsugu. 1999. Eliminating * as a feature (of
       traces). In *Working minimalism*, ed. Samuel D. Epstein and
       Norbert Hornstein, 77-93. Cambridge, Mass.: MIT Press.
Koizumi, Masatoshi. 1993. Object agreement phrases and the split
       VP hypothesis. In *Papers on Case and Agreement I: MIT
       working papers in linguistics* 18, 99-148.
Koizumi, Masatoshi. 1995. *Phrase structure in minimalist syntax*.
       Doctoral dissertation, MIT, Cambridge, Mass.
Lakoff, George. 1970. Global rules. *Language* 46: 627-639.
Lakoff, George. 1972. The arbitrary basis of transformational
       grammar. *Language* 48: 76-87.

Lasnik, Howard. 1995a. A note on pseudogapping. In *Papers on
       minimalist syntax, MIT working papers in linguistics* 27,
       143-163.
Lasnik, Howard. 1995b. Notes on ellipsis. Lecture presented at
       Forschungsschwerpunkt Allgemeine Sprachwissenschaft.
       Berlin.
Lasnik, Howard. 1999. On feature strength: Three minimalist
       approaches to overt movement. *Linguistic Inquiry* 30: 197-
       217.
Lasnik, Howard. 2001. Derivation and representation in modern
       transformational syntax. In *Handbook of syntactic theory*,
       ed. Mark Baltin and Chris Collins, 62-88. Oxford:
       Blackwell.
Levin, Nancy. 1978. Some identity-of-sense deletions puzzle me.
       Do they you? In *Proceedings of the Fourteenth Annual
       Meeting of the Chicago Linguistic Society*, 229-240.
       Chicago Linguistic Society, Chicago University, Chicago,
       Ill.
Lobeck, Anne. 1990. Functional heads as proper governors. In
       *Proceedings of North Eastern Linguistic Society 20*, 348-
       362. GLSA, University of Massachusetts, Amherst
Merchant, Jason. 1999. *The syntax of silence: Sluicing, islands,
       and identity in ellipsis*. Doctoral dissertation,
       University of California Santa Cruz, Santa Cruz.
Ochi, Masao. 1999. Some consequences of Attract F. *Lingua* 109:
       81-107.
Ross, John Robert. 1969. Guess who? In *Papers from the Fifth
       Regional Meeting of the Chicago Linguistic Society*, ed.
       Robert I. Binnick, Alice Davison, Georgia M. Green, and
       Jerry L. Morgan, 252-286. Chicago Linguistic Society,
       University of Chicago, Chicago, Ill.
Saito, Mamoru, and Keiko Murasugi. 1990. N'-deletion in Japanese.
       In *University of Connecticut working papers in
       linguistics* 3, 87-107.