# Gapping: In Defense of Deletion

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## 1    Introduction

*Gapping* refers to the following type of construction:

(1)    [α John likes caviar] and [γ Mary beans].

Typically, Gapping involves two such conjoined clauses, where the second clause contains no pronounced verbal material, as in (1). Following usual terminology, I call the missing material the *Gap*, the first clause (e.g. α) the *antecedent clause*, the second clause (e.g. γ) the *gapped clause*, and the pronounced elements of the gapped clause *remnants*.

Assuming that the Gap is present somehow in the syntax, we have three potential analyses, depending on the nature of the Gap. We may interpret it as (i) a null pro-form, (ii) a deleted element, or (iii) a trace of movement. I immediately rule out possibility (i), following Hankamer and Sag (1976), who argue that Gaps are Surface Anaphors (as opposed to Deep Anaphors (i.e. null pro-forms), based on their Island sensitivity and the fact that they require a linguistic antecedent.

The second idea (deletion) is as old as the term *Gapping*. The first detailed investigation of the phenomenon was in Ross' 1967 dissertation, where he coined its name, and gave a deletion analysis. In 1976, Sag suggested that the remnants A'-move out of the gapped clause before deletion, preserving the hypothesis that operations (such as deletion) affect entire constituents. My proposal is essentially Sag's, differing significantly only in the assumption that remnants adjoin to VP, rather than at the sentence level, as in (2).[1]

(2)    John likes caviar, and [VP Mary₁ [VP beans₂ [VP ~~t₁ likes t₂~~] ] ]].

The proposed account also takes advantage of a recently proposed licensing condition on ellipsis in general, to be discussed in section 3.2.


## 2    ATB

The deletion hypothesis for Gapping remained uncontested until Kyle Johnson (1996) proposed possibility (iii): Gaps as traces of movement. Johnson argues that the verb is moving Across the Board (ATB) from both conjuncts (into $I^0$, thereabouts), as in (3), roughly.

(3)     John$_{subj}$ likes$_1$ [$_{VP}$ [$_{VP}$ $t_{subj}$ [ $t_1$ caviar ] and [$_{VP}$ Mary $t_1$ beans ] ] ].

He argues against a deletion analysis for Gapping, based on (i) the fact that Gapping and VP Ellipsis differ empirically, and (ii) a fear that a deletion analysis would falsely give a distributive interpretation of sentence-level negation.

## 2.1     VP Ellipsis vs. Gapping: An Incomplete View

Since VP Ellipsis is deletion, Gapping should behave similarly if it is deletion, too, argues Johnson. He points to the following empirical differences between VP Ellipsis and Gapping, for evidence against a deletion analysis.

1. *Allowing non-linguistic antecedents*:  Johnson notes that "[u]nder certain circumstances VP Ellipsis may even find antecedents from unspoken context, but not so with Gapping" (Johnson 1996, p. 16), relaying the following examples. This is also impossible for Pseudogapping and Sluicing, as shown in (c) and (d).[2]

(4)     a. [Hankamer brandishes cleaver, advances on Sag]
            Sag: Dont! My god, dont! (Hankamer & Sag 1976, note 19:409)
        b. [Hankamer produces an orange, proceeds to peel it, and just as Sag produces an apple, says:]
             #And Ivan, an apple.  (ibid.  p.  410)
        c. [same context]
             #And Ivan is, an apple.
        d. [Hankamer produces a gun, points it offstage and fires, whereupon a scream is heard]
            Sag: #Jesus, I wonder who.  (ibid.  p.  408)

2. *Active/Passive Mismatches*:  VP Ellipsis tolerates a mismatch between antecedent and ellided phrases (a), while Gapping does not (b).  It is also impossible for Sluicing, though (d), and marginal for Pseudogapping (c).

(5)     a. That can all be explained, and the professor will.  (Sag 1976)
        b. *That should be explained to individual students by the TA, but the professor to the class in general.
        c. ?That should be explained to individual students by the TA, but the professor will to the class in general.
        d. *Someone sent this letter to me, but I don't know by who(m).

3. *Backwards Anaphora*:  There is backwards VP Ellipsis (a), but no backwards Gapping (b), in English.[3] There is also no backwards Pseudogapping (c), although there is backwards Sluicing (d).

(6)     a. Sue didn't, but John ate meat.  (Lobeck 1995)
        b. *Sue the lamb, but John will have the salmon.

c. *Sue will, the lamb, and John will have the salmon.
d. I don't know what, but John will have something.

4. *Subordinate Clauses*: While the antecedent and elided clauses of a VP Ellipsis construction can be conjoined with a subordinating conjunction (a), those of a Gapping construction cannot (b). Those of both Pseudogapping (c) and Sluicing (d) can.

(6)     a. John will have caviar, although others won't.
        b. *John will have caviar, although others beans.
        c. John will have caviar, although others will beans.
        d. John will have something, although I don't know what.

This data is summarized below.

|  | VP Ellipsis | Gapping | Pseudogapping | Sluicing |
| --- | --- | --- | --- | --- |
| 1. Non-linguistic antecedents | + | - | - | - |
| 2. Active/Passive mismatches | + | - | + | - |
| 3. Backwards Anaphora | + | - | - | + |
| 4. Subordinate Clauses | + | - | + | + |

The first three differences between VP Ellipsis and Gapping that he points out also hold between VP Ellipsis and Sluicing or Pseudogapping, which are both standardly accepted to be deletion phenomena. Sluicing and Pseudogapping are, moreover, more widespread cross-linguistically than VP Ellipsis "as attested in English," to quote Merchant (to appear). Therefore, an argument against Gapping as deletion based on these differences will not hold.

The inability to appear in a subordinate clause, however, uniquely distinguishes Gapping among ellipsis phenomena. One of the main attractions of the ATB hypothesis is that it accounts for this fact; ATB extraction can only take place out of coordinate structures. A deletion analysis can also account for it, though, if the gapped clause is a VP rather than a sentence, as according to my proposal. Subordinating conjunctions like *although* cannot conjoin VP's, only coordinating conjunctions can.

## 2.2    Negation in the antecedent clause
Johnson's second argument against Gapping as deletion is based on (7).

(7)     We can't eat caviar and him beans!

He argues that a deletion analysis of (7) would allow the reading in (8)b., which should be ruled out.

(8)     a. ¬×[(We eat caviar) & (him eat beans)]

b. *[¬×(We eat caviar)] & [¬ ×(him eat beans)]

He assumes that the Gap consists of *can't*, so the deletion analysis looks something like (9), which has the bad reading available.

(9)     *Johnson's deletion analysis (implicit):*
        We can't eat caviar and him beans [ can't [ eat ] ].

His analysis is in (10), where *can't* and *eat* have ATB-moved from a pair of coordinated VPs. According to Johnson, ATB movement doesn't reconstruct, so the negation does not go back into either clause, so the bad reading is ruled out.

(10)    *Johnson's ATB analysis:*
        We can't$_1$ eat$_2$ $t_1$ $t_2$ caviar and him $t_1$ $t_2$ beans.

But according to my proposal, the gapped clause is a VP, as shown in(11). If this is the case, then the Gap does not consist of *can't*, but the negation would scope over both conjuncts, giving only the good interpretation in (8)a.

(11)    *Under my deletion proposal:*
        We can't eat caviar and him beans [$_{VP}$ eat ].

## 2.3     The gapped clause is a VP

The response to both of Johnson's concerns, then, is that the gapped clause is a VP, and we have independent reason to believe this.

Johnson (1996) argues at length, in fact, that the gapped clause is smaller than IP. He notes, for example, the contrast in (12), where an overt verb in the second conjunct significantly worsens the sentence.

(12)    [Not every girl]$_1$ ate a green banana and her$_1$ mother ?(*ate) a ripe one.
        (Johnson 1996)

The ability of the quantifier (*Not every girl*) in the antecedent clause to bind a variable in the gapped clause (*her*) indicates that the quantifier c-commands it.

Other support for the idea of VP-, rather than IP- adjunction comes from data involving Antecedent Contained Deletion (ACD) and Negative Polarity Items (NPIs). Merchant (2000) argues that examples like the following must involve adjunction to VP.

(13)    That boy won't do [a damn thing I ask him to]. (Merchant 2000)

The syntax of ACD in examples like (13) uncontroversially involves QR of the bracketed constituent, *a damn thing I ask him to*. This constituent contains an NPI *a damn thing*, which must be in the scope of its licenser (*n't* in this case). If

the bracketed phrase QRs to IP, it would be outside the scope of *n't*, so Merchant concludes that it must adjoin to VP instead.

   Thirdly, ÒVP is an unacceptable second remnant in a Gapped clauseÓ as put by Sag (1980).

(14) *John will bring dessert, and Mary provide dinner.

This can be explained if only VP, not AuxP, can be deleted. [4] JohnsonÕs account will rule in (14), because he allows the gapped clause to be AuxP-size.

   Adjunction of remnants to VP, and no higher, follows from the Shortest Move hypothesis of the Minimalist Program. Movement and adjunction of remnants to any place above VP would violate derivational economy, because it would constitute a larger move than necessary.

## 3 In favor of Deletion

I offer three empirical arguments in favor of a deletion analysis over ATB. First, Gapping is capable of disambiguating both scope and anaphora, in ways that follow from general results on ellipsis research (Section 3.1). Next, a recently proposed constraint on ellipsis in general, called the e-GIVENness condition, allows us to account for split antecedent phenomena (Section 3.2). Lastly, Gapping is selectively sensitive to RossÕs Island Constraints, just as we would predict from a deletion analysis (Section 3.3).

### 3.1 Disambiguation

Gapping is capable of scope disambiguation, as illustrated in the contrast between (15) and (16). In (15), we have ambiguity; both surface and inverse scope are available. But this ambiguity disappears in (16), with Gapping.

(15) a. A student accompanied every visitor. ($\forall>\exists$), ($\exists>\forall$)
   b. An American runner seems to have won the gold medal. (seems>$\exists$), ($\exists$>seems)

(16) a. A student accompanied every visitor yesterday, and Mr. Johnson, today. *($\forall>\exists$), ($\exists>\forall$)
   b. An American runner seems to have won the gold medal, and Sergei, the silver. *(seems>$\exists$), ($\exists$>seems)

These effects are typical of ellipsis operations, as described by Fox (2000):

**The Ellipsis Scope Generalization (ESG)** *In constructions that involve phonological reduction or deletion, inverse scope is possible only if it is semantically distinct from surface scope both in the sentence that includes the*

*phonologically reduced/elided VP and in the sentence that includes the*
*antecedent VP.* (Fox 2000)

On this hypothesis, inverse scope is not possible in the gapped clause because it is indistinct from surface scope. So, by Scope Parallelism, it's not possible in either conjunct; the inverse scope reading for the antecedent clause is thus eliminated. The facts in (15) and (16) follow from any theory of ellipsis that accounts for the ESG; an ATB account of Gapping leaves these facts unexplained.

Gapping constructions can eliminate construal ambiguities, too, as shown in the contrast between (17)a. and its overt counterpart in (17)b.

(17)    a. Max said he gave his mother a bracelet, and Oscar a watch.
(strict/strict, sloppy/sloppy, strict/sloppy, *sloppy/strict)
        b. Max said he gave his mother a bracelet, and Oscar said he gave his mother a watch. (strict/strict, sloppy/sloppy, strict/sloppy, sloppy/strict)

(17)a. does not allow the sloppy/strict reading, wherein Oscar said that Max saw Oscar's mother, but (17)b. does. This type of behavior, named "The Many-Pronouns Puzzle" in Fiengo and May (1994), is a feature of ellipsis operations in general, thus follows naturally from a deletion analysis. Again, an ATB account would it unexplained.

## 3.2    The e-GIVENness Condition
## 3.2.1    Background

Assuming that deletion is licensed just in case there is some antecedent which is *identical*, in the appropriate sense, to what is deleted, we must understand what constitutes *identity*. Merchant (to appear) observes that *structural isomorphism* is not the appropriate sense of identity, because of Sluicing examples such as the following:

(18)    Decorating for the holidays is easy if you know how. (Merchant to appear)

He proposes that identity of meaning, modulo focused elements, does make the right predictions for both Sluicing and VP Ellipsis.[5] Formally, his proposal is as follows:

**e-GIVENness Condition** A VP or IP a can be deleted only if a is e-GIVEN (Merchant to appear).

**e-GIVENness** An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo ∃-type shifting,
        a. A entails F-clo(E), and
        b. E entails F-clo(A)

**F-closure** The F-closure of α, written as F-clo(α), is the result of replacing F-marked parts of α with ∃-bound variables of the appropriate type (modulo ∃-type shifting).

Consider (19) for example:

(19)    [$_α$ John$_F$ likes caviar$_F$ ] and [$_γ$ Mary$_F$ beans$_F$ ].

The F-marked (focused) elements of the antecedent clause α are *John* and *caviar*. Replacing these with existentially bound variables, we have (20)a. Similarly, the F-marked elements of the gapped clause γ are *Mary* and *beans*; replacing those with existentially bound variables, we (20)b.

(20)    a. F-clo (α) = $∃x∃y[x$ likes $y]$
       b. F-clo (γ) = $∃x∃y[x$ likes $y]$

Since the focus closure of the gapped clause (γ) and that of the antecedent clause (α) are identical, they entail one another. Hence, the gapped clause is e-GIVEN, so the licensing condition is satisfied.

### 3.2.2   Prosody
The e-GIVENness condition accurately captures the effect of prosody. For example, it rules out the (a) reading of (21), assuming that lexical subjects like *Mary* must be focused.

(21)    John said Mary wants caviar for dinner, and Sue beans.
       a.  *...Sue said Mary wants caviar for dinner.
        b.  ...Sue wants beans for dinner.

Johnson, following Niejt (1979), rules out long-distance gaps entirely to account for examples like (21). This constraint is too strong, as illustrated by the acceptability of examples like (22)a.

(22)    a. John$_F$ said he wants caviar$_F$ for dinner, and Mary$_F$ beans$_F$ .
       b.  John said he$_F$ wants caviar$_F$ for dinner, and Mary$_F$ beans$_F$.

The e-GIVENness condition rules in (a) while accounting for the contrast in meaning between (22)a. and (22)b. at the same time.

### 3.2.2   Split Antecedents
Another empirical advantage of the e-GIVENness condition is that allows for a lack of structural isomorphism between the antecedent clause and the gapped clause,

which is needed to explain so-called "split antecedent" phenomena. A famous example of a split antecedent in VP Ellipsis is the following:

(23)    Wendy is eager to sail around the world and Bruce is eager to climb Kilimanjaro, but neither of them can because money is too tight. (Webber 1974)

Counter to Hankamer 1974, the examples in (24) show that Gapping *can* have a split antecedent.

(24)    a. Wendy wants to sail around the world because she loves travel, and Bruce wants to climb Kilimanjaro in order to prove to himself that he can, but neither in order to show off for anyone.
        b. Fred bought Suzy flowers in order to thank her, and Bob took her out to eat because they both like sushi, but neither because they want to date her.
        c. Liz goes running 6 times a week, and Alex lifts weights 3 times a week, but neither every day.
        d. John calls home on Sundays, and Jill balances her checkbook every other week, but neither very consistently.

The ATB analysis could not account for these sentences, because there is no single destination for any ATB-moved verb, and the Gap is not isomorphic to either of its antecedents.
        A deletion analysis, by contrast, can explain these with the e-GIVENness Condition. Call the first antecedent in (24)a $\alpha$, the second antecedent $\beta$, and the gapped clause $\gamma$, like so:

(25)    [$_\alpha$ Wendy wants to sail around the world because she loves travel], and [$_\beta$ Bruce wants to climb Kilimanjaro in order to prove to himself that he can], but [$_\gamma$ neither in order to show off for anyone].

Assume that the LF of the gapped clause contains an anaphoric element like *do it*.[6] Assume further that *Wendy nor Bruce* is N'-deleted after *neither*.

(26)    LF($\gamma$):
        neither ~~Wendy nor Bruce~~ [in order to impress anyone]$_1$ ~~[want to do it $t_1$]~~

Assuming that *Wendy nor Bruce* is deleted after *neither* makes $\gamma$ a coordinate structure. Doing a multidimensional analysis of this coordination, we gain two *constituent structures*, which I label $\gamma_1$ and $\gamma_2$.

(27)    Constituent structures of $\gamma$:
        $\gamma_1$: Wendy wants to do it in order to impress anyone.

$\gamma_2$: Bruce wants to do it in order to impress anyone.

(Note that *Wendy* and *Bruce* are not F-marked in the gapped clause because theỹ e not pronounced, so they *are* present in the focus closures of $\gamma_1$ and $\gamma_2$.) We have the following focus closures for $\gamma_1$, $\gamma_2$, $\alpha$, and $\beta$, then:

(28)  a. F-clo($\gamma_1$) = $\exists r$ [Wendy wants to do it$_1$ r ]
      b. F-clo($\gamma_2$) = $\exists r$ [Bruce wants to do it$_2$ r ]
      c. F-clo($\alpha$) = $\exists r$ [Wendy wants to [sail around the world]$_1$ r ]
      d. F-clo($\beta$) = $\exists r$ [Bruce wants to [climb Kilimanjaro]$_2$ r ]

When the anaphors in (28)c. and (28)d. are given the indicated interpretation, both $\gamma_1$ and $\gamma_2$ are e-GIVEN, by the presence of (28)a. and (28)b. With the further assumption:

(29)  A VP or IP $\alpha$ is e-GIVEN if all of the constituent structures of $\alpha$ are e-GIVEN.

examples (24) are shown to satisfy the e-GIVENness condition. (Notice that accounting for these cases of non-isomorphism between antecedent and gapped clause is made possible by the semantic nature of the licensing constraint.)

## 3.3    Island Constraints

In Merchant̃ s investigation of Sluicing, he noticed that the sluiced *wh*-phrase is able to violate a select subset of Ross̃ s Island Constraints. This led him to the following ontology:

(30)  The ̀Pluralistic View of Islandhood́ (Merchant to appear)

### ̀F́ slands
   A.  left-branches (LBC)
   B.  derived positions (subjects, topicalizations)
   C.  COMP-trace effects
   D.  coordinate structures
        i.  extraction of conjuncts
### ̀Propositionaĺ Islands
   D.      ii.  extraction out of conjuncts
   E.  complex noun phrases (CNPC)
        i.  relative clauses (indicative, subjunctive)
        ii.  sentential complements to head nouns
   F.  sentential subjects (SSC)
   G.  adjuncts (Adjunct Condition)
   H.  wh-islands

The PF islands do not appear to prevent extraction in Sluicing; the Propositional Islands do. Gapping patterns similarly.

### 3.3.1   PF Islands

**A**. **The Left Branch Constraint**
Lke Sluicing, Gapping appears exempt from the Left Branch Constraint (LBC). he traditional formulation of the LBC is:

**Left Branch Constraint**: No NP that is the leftmost constituent of a larger NP can be reordered out of this NP by a transformational rule.  (Ross 1967)

The traditional example of an LBC violation is:

(31)     *[How tall]$_1$ did the Lakers hire a [$_{NP}$ $t_1$ forward]?

Examples (32) and (33) show, respectively, that Sluicing and Attributive Comparative Deletion can, too.

(32)     The Lakers hired a tall forward, but I donÕknow [how tall]$_1$ ~~the Lakers hired a [$_{NP}$ $t_1$ forward]~~.

(33)     The Bulls hired a taller forward than $Op_1$ the Lakers did ~~hire a [$_{NP}$ $t_1$ forward]~~.  (Kennedy and Merchant 2000)

Sluicing and Attributive Comparative Deletion are both deletion environments, which leads to the idea that the LBC is a *PF-crash phenomenon*.  Kennedy and Merchant (2000) propose that the syntax of these DegPs is as in (34), where a [+wh] DegP has moved through specifier positions to SpecFP, where it passes its [+wh] feature to F$^0$ via Spec-Head Agreement.

(34)     [$_{FP}$ [$_{DegP[+wh]}$ how tall ]$_1$ [$_{F'}$ [$_{F[+wh]}$ (of)]  [$_{DP}$ $t_1$ a [$_{NP}$ $t_1$ forward ] ] ] ]

By their hypothesis, no F$^0$[+wh] exists in English, so when we try to pronounce this structure, we experience a PF-crash phenomenon.  This crash is avoided when the offending feature is deleted from PF, hence the grammaticality of (32) and (33).
     If Gapping is deletion, we would predict similar effects, and indeed we have them.  Extraction of a degree phrase remnant does not create an LBC effect, as shown in (35).  (The impossibility of the overt verb in (35) shows that these cannot be analyzed in terms of NP-internal ellipsis; that is, we cannot assume that the remnant really is an NP, partially deleted.  If this were possible, it should be with the overt verb as well.)

(35)  a. I make too strong an espresso, and Fred (*makes) too weak.
      b. Mary wrote too long a paper, and Suzy (*wrote) too short.
      c. The professor gave too hard a test, and the TA (*gave) too easy.

The LFs of (35) are in (36):

(36)  a. ... [Fred] [$_{DegP}$ too weak]$_1$ [$_{VP}$ $t_1$ makes [$_{FP}$ $t_1$ [$_{F[+wh]}$ (of)] [$_{DP}$ an [$_{NP}$ $t_1$ espresso]]]]
      b. ... [Sue] [$_{DegP}$ too short]$_1$ [$_{VP}$ $t_1$ wrote [$_{FP}$ $t_1$ [$_{F[+wh]}$ (of)] [$_{DP}$ a [$_{NP}$ $t_1$ paper]]]]
      c. ... [Fred] [$_{DegP}$ too easy]$_1$ [$_{VP}$ $t_1$ gave [$_{FP}$ $t_1$ [$_{F[+wh]}$ (of)] [$_{DP}$ an [$_{NP}$ $t_1$ assignment]]]]

The F$^0$[+wh] is deleted from PF, hence (35).
    Note that ọplain,ọf you will, attributive remnants *do* generate LBC effects, as shown in (37).

(37)  a. *Sheila drives a white car, and Bob, red.
      b. *Sheila wants to elect the Alaskan candidate, and Bob, Texan.
      c. *Sheila likes to study in the quiet room, and Bob, loud.

This is because they lack the [+wh] feature required for movement into SpecFP before ultimately adjoining to VP.  As shown in (38), non-DegPs as in (37) cannot undergo this movement overtly, while those in (35) can, as shown in (39).

(38)  a. *Bob drives [$_{FP}$ red (of) a car].
      b. *Bob wants to elect [$_{FP}$ Texan (of) the candidate].
      c. *Bob likes to study in [$_{FP}$ loud (of) the room].

(39)  a. Fred makes [$_{FP}$ too weak (of) an espresso].
      b. Sue wrote [$_{FP}$ too short (of) a paper].
      c. The TA gave [$_{FP}$ too easy (of) an assignment].

To summarize, the hypothesis that LBC effects arise from a PF-crash predicts that Gapping should be exempt from it, if Gapping is deletion.  And this prediction is borne out.

**B.  Topicalizations**
As shown in (40), Sluicing can apparently violate the condition against extracting from within a topicalized phrase, so Merchant considers it a PF Island too.

(40)  A biography of someone, Mary refused to read, but I donọknow who.

The following example would seem to suggest that Gapping cannot violate this constraint, unlike Sluicing:

(41)    *[α A biography of Harpo, Mary refused to read], and [β Groucho, Sue].

But (41) is in fact independently ruled out on the basis of an e-GIVENness condition violation:

(42)    F-clo(α) = ∃x∃y [x refused to read y]
        F-clo(β) = ∃x∃y [x refused to read a biography of y]

F-clo(α) does not entail F-clo(β) so α is not e-GIVEN.  Any such extraction from a topicalized phrase would cause this, thus it is impossible to find an apparent exemption from this island for Gapping.

## C.  Comp-Trace Effects
It is similarly impossible to test for Comp-Trace effects, because a complementizer in a deleted clause is necessarily unpronounced.  For what it̃s worth, the presence of a $C^0$ in the antecedent clause does not create an adverse effect:

(43)    a. Mary wants for Joe to win, and Sue, Chris.
        b. Mary said that Joe would win, and Sue, Chris.

## D.i.  Extraction of Conjuncts
Sluicing and Gapping apparently differ with respect to the ability to extract a conjunct; Sluicing can, but Gapping cannot, as evidenced in (44).

(44)    a. Max read *War and Peace* and some German short story, but I cañt remember what.  (Merchant to appear)
        b. Max read *War and Peace* and some German short story, and Sheila some Dostoevsky novel.

(44)b. does not give a reading wherein Sheila reads *War and Peace* in addition to the Dostoevsky novel, so *some Dostoevsky novel* cannot have originated inside a coordination with *War and Peace* in the gapped clause.  By contrast, in (44)a. *War and Peace* is part of the meaning of the deleted phrase; Merchant concludes that what is deleted is [*Max read* War and Peace *and* t].  However, there is an alternative analysis of (44)a. to the following effect:

(45)    ...I cañt remember what ~~German short story Max read *t* along with *War and Peace*~~.

Assume that nothing is focused in the antecedent clause of (44)a., so the focus closure is the antecedent clause itself. Then the Sluiced phrase on the interpretation in (45) is e-GIVEN.

Such an analysis for (44)b. would give the following LF:

(46)    ...Shiela$_1$ some Dostoevsky novel$_2$ [$t_1$ read $t_2$ along with *War and Peace*].

For the ellipsis to be e-GIVEN, the focus closure of the antecedent clause would be:

(47)    $\exists x \exists y$ [$x$ read *War and Peace* and $y$]

In other words, the conjunct *some German short story* receives focus, but not the entire coordination. This violates the assumption that focus ʻpercolates upʼ through coordinate structures, so (47) is not a licit focus closure. So, a reading in (44)b. wherein Shiela reads *War and Peace* as well is accurately predicted to be impossible.[7] Extraction *of* a conjunct may in fact be a Propositional Island, then.

### 3.3.2   Propositional Islands

Like Sluicing, Gapping observes all of Merchantʼs Propositional Islands.

**D.ii.  Extraction out of conjuncts**
(48)    *John read a biography of Groucho and a romance novel, and Sue, (of) Chico.
(49)    *Jill wants to become an astronaut or the CEO of Xerox, and Bob, IBM.

**E.i.  CNPC: Relative Clauses**
(50)    *Suzy doesnʼt like men who play instruments, and Mary, sports.
(51)    *The man that gave the lecture plays the cello, and the concert, the violin.

**E.ii.  (Sentential) complements to head nouns**
(52)    *I read out the order to fix tortillas, and Mary, beans.
(53)    *I reviewed the decision to fire the line-workers, and Mary, the inspectors.

**F.  Sentential Subjects**
(54)    *That John hangs out with Mary annoys Suzy, and Suzy Laura.
(55)    *That *Abigail* is lying is Danforthʼs opinion, and *Proctor*, the juryʼs.

**G.  Adjunct condition**
(56)    *John must be a fool to have married Jane, and Bill, Martha.
(57)    *Tom went to Florida to learn to play tennis, and Bill, squash.

**H.  Wh-island constraint**
(58)    *John wondered what to cook today, and Peter, tomorrow.

(59)    *You have brought up the matter of the Hindenburg, which is an
        important question, and the question of the lost continent a stupid
        question. (Sag 1980)

## 4    Conclusion

The deletion analysis of Gapping is descriptively and explanatorily superior to the
ATB analysis, particularly in light of recent ellipsis research. Johnson's
arguments against deletion can be refuted by appealing to a wider range of ellipsis
data and by considering the gapped clause a VP. The deletion proposal succeeds
over ATB in accounting for three empirical properties of Gapping: (i)
disambiguation of scope and anaphora, (ii) split antecedent phenomena, and (iii)
selective sensitivity to Island constraints.

A deletion account under the e-GIVENness condition also carries two major
*explanatory* advantages. Because of its semantic nature, it provides a unified
mechanism for licensing and identification.[8] The e-GIVENness condition is just
the constraint on Sluicing and VP Ellipsis as well (Merchant to appear), providing
a unified account for multiple types of ellipsis.

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### Notes

[1] A potential difficulty for this account but also Johnson's is that it requires extraction from only
the initial conjunct. Johnson's assumption, which I must adopt as well, is that A' movement is
permitted from the first of two conjuncts (Johnson 1996). His independent pieces of evidence are
these:

(i)      a. Liz made Mason out to be intelligent and Sarah to be kind.
         b. Julie has believed Liz for some time to be honest and Scott to be entertaining.

[2] Could the following be an example of Gapping with a non-linguistic antecedent?

(ii)      [Mr. Boss' secretary picks up a call on line 2 from Mr. Client. Mr. Client asks to speak
with Mr. Boss. The secretary alerts Mr. Boss to the call, saying:]
          Client, line 2.

what is elided would be something like "You have a call from _ on _."

[3] Backwards Gapping is possible in head-final languages. This is predicted by the assumption that
Gapped clauses are VP's; if $I^0$ is to the right of VP, then the initial conjunct can be a VP, but not if
$I^0$ precedes VP.

[4] Many authors have claimed that the following variation:

(iii)     John will bring dessert, and Mary wine.

involves deletion of AuxP. This assumption is not necessary; we have the same interpretation if
*will* scopes over a pair of VP conjuncts of which the second is deleted.

[5] VP Ellipsis is not possible in all languages where Sluicing and Gapping are; it seems to be
subject to additional constraints. Two of the languages in which it is not possible are Greek and
French, which leads to the idea that the impossibility of VP Ellipsis is associated with V-to-I
raising. But this hypothesis is wrong because apparently both Irish and Hebrew are also V-to-I

languages and have VP Ellipsis as well, as discussed by McCloskey (1991) and Doron (1999), respectively. These facts remain puzzling.

[6] Thanks to Chris Kennedy

[7] A possible problem for this type of account comes from examples like the following:

(iv)     a. McCormack and some other senator jointly sponsored the legislation, but I canõ
remember who.

        b. McCormack and some other senator jointly sponsored the legislation, and Kennedy the education bill.

We do not get the reading in (b): *Kennedy* ~~jointly sponsored~~ *the education bill*, as might be predicted by the analysis given for (44)b. There are two possible explanations. First, *jointly* is focused and therefore absent in the focus closure in (iv)b., but not focused and therefore present in the focus closure in (iv)a. The second possibility is that antecedents of gapped clauses are VPs, and the antecedent in (iv)a. is the lower, unmodified VP because it does not yield an absurd reading, unlike the upper VP.

[8] To retrieve the meaning of the unexpressed elements, bind the existentially-bound variables in the focus closure of the antecedent clause with the remnants.

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