Recoverability and Identity are Dissociable in Double Ellipsis

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1 Introduction

1.1 Ellipsis

(1) a. John bought something, but I don't know what $<$he bought $t_{\text{what}}>$. *TP ellipsis*

 b. John bought a book, and Mary did too $<$buy a book$>$. *VP ellipsis*

 c. John bought one book, while Mary bought four $<$books$>$. *NP ellipsis*

- $<$Ellipsis$>$ (1) might seem to undermine form-meaning mapping – missing form, understood meaning.

- But meaning is recovered from spoken form, subject to identity (Hankamer 1971, Sag 1976, Williams 1977).

1.2 Recoverability

- Recoverability – Fiengo & Lasnik (1972):

On Nonrecoverable
Deletion in Syntax
Robert Fiengo,
MIT
Howard Lasnik,
MIT

1.3 Identity

- Further to recoverability, ellipsis requires identity (though cf. 1).

- E.g. sluicing requires identity in voice (Merchant 2013) – match (2) vs. mismatch (3):

(2) a. <u>Someone saved Alex</u>, but we don't know who $<t_{\text{who}}$ saved Alex$>$. *act. = act.*

 b. <u>Alex was saved</u>, but we don't know by whom $<$Alex was saved$>$. *pass. = pass.*

(3) a. * <u>Someone saved Alex</u>, but we don't know by whom $<$Alex was saved$>$. *act. ≠ pass.*

 b. * <u>Alex was saved</u>, but we don't know who $<t_{\text{who}}$ saved Alex$>$. *pass. ≠ act.*

1.4 Recoverability $\sim$ identity?

- Assumption that recoverability and identity go hand-in-hand (Craenenbroeck & Merchant 2013: 710):

 "...the question of recoverability: To what extent and in what way is the abstract elliptical structure identical to the overt syntax of the ellipsis antecedent?"

- But must ellipsis be identical with the same material from which it is recoverable?[1]

[1]Insofar as active and passive are truth-conditionally equivalent, recoverability is satisfied in (3) just as much as in (2). The further requirement for identity – as met in (2) but failed in (3) – is thus already dissociated from recoverability in the sense of being additional. The dissociation argued for here is more radical: ellipsis sites do not need to establish identity with the same material from which their meaning is recovered.

1.5   Dissociation in double ellipsis

- Today: recoverability ($\Uparrow$) and identity (=) are dissociable in cases of 'double ellipsis'.

- Survey cases where a lone ellipsis is bad for violating identity (4) . . .

(4)   Spoken material
$$\Uparrow, *=$$
bad $\langle$ellipsis$\rangle$

- . . . but the very same ellipsis becomes good after adding a second, intermediate ellipsis (5):

(5)   Spoken material
$$\Uparrow$$
intermediate $\langle$ellipsis$\rangle$
$$=$$
previously bad $\langle$ellipsis$\rangle$ becomes good

$\Uparrow$ Recover from spoken material.   = Identity between the two ellipses.

2   Argument structure

- Merchant (2013): sluicing requires structural identity in voice; e.g. (6) = (3a):

(6)   * Someone saved Alex, but we don't know by whom $\langle$Alex was saved$\rangle$.   *act. ≠ pass.*

2.1   Counterexamples

- However, Nakamura (2013) observes (7):[2]

(7)   a.   Not so much whether to teach the Bible in public schools, but how? And by whom?

      b.   GE Capital and Xerox in Stamford responded to inquiries about their use of extended-stay hotels by saying that they use them from time to time, but they were not sure how much or by whom.

- The naturally occurring sluices in (7) look to be counterexamples to structural identity in voice; the final sluices are passive despite the preceding spoken material being active (8):[3]

(8)   a.   Active: . . . teach the Bible in public schools . . .
             Passive: And by whom $\langle$the Bible should be taught$\rangle$?

      b.   Active: . . . they use them from time to time . . .
             Passive: . . . or by whom $\langle$they are used$\rangle$.

- Nakamura (2013): faced with (7), abandon structural identity.

- Here: structural identity holds in (7), though dissociated from recoverability.

2.2   Double ellipsis

- Notice first that both examples in (7) involve double ellipsis.[4]

- Double ellipsis is in fact crucial to (7). With single ellipsis, the active-passive mismatches laid out in (8) are ungrammatical in (9):

(9)   a.   * Not so much whether to teach the Bible in public schools, but by whom?

      b.   * They use them from time to time, but they were not sure by whom.

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[2](a) – Corpus of Contemporary American English; (b) – The New York Times, Aug 9, 1998.

[3]See Anand et al. (2021) regarding the appearance of the modal in the ellipsis site in (8a).

[4]See Citko & Gračanin-Yuksek (2020) for robust argumentation that coordinated and disjoined sluices involve two separate instances of clausal ellipsis.

2.3   Analysis

- Proposal: dissociate recoverability (⇑) from identity (=)

    ⇑ recover meaning from the spoken active material   (cf. other anaphoric devices, like pronouns)
    – this meaning can be syntactically represented with passive structure
    = the two ellipses are identical with one another as passive; mutually licensing for identity

(10)   Applied to (7a):

$$teach(bible)$$
$$\Uparrow$$

how <the Bible should be taught>

=

by whom <the Bible should be taught>

(11)   Applied to (7b):   ⇑ *use(hotels)(they)*   how much <they are used> = by whom <they are used>

2.4   Point of order

- Potential problem: order is crucial.

- Reversing the order from (7) to place the passive sluice first is unacceptable (12):

(12)   a.   * Not so much whether to teach the Bible in public schools, but by whom? And how?
       b.   * They use them from time to time, but they were not sure by whom or how much.

- This unacceptability can be attributed to local, intermediate ungrammaticality.

- In (12), the combination of active spoken material and passive first sluice is ungrammatical:

    – give up at *by whom*, unacceptable

- Whereas in (7), the combination of active spoken material and the first sluice is grammatical:

    – parse the first sluice initially as active → the passive second sluice forces reanalysis of the first to be passive → grammatical after reanalysis

- In support of this explanation, the acceptability of 'passive sluice first' (12) improves when local ungrammaticality doesn't have chance to arise.

- In backwards ellipsis (13), the active spoken material follows both ellipses:[5]

(13)   While they weren't exactly sure by whom < > or how often < >, the company admitted to using extended stay hotels from time to time.

2.5   Constructed examples

- The empirical point does not depend on any peculiarities of the naturally occurring examples in (7) – intermediate sluices with *how*; PRO (a) and bound *they* (b) subjects.

- Constructed examples avoiding these features (14)-(16) pattern the same way:

(14)   [?] The university appoints vice chancellors, but the regulations don't say *(when, or) by whom.
          ⇑ *appoint(VCs)(uni)*   when <VCs are appointed> = by whom <VCs are appointed>

(15)   [?] Somebody hacked our computer network, but we've no idea *(why, or) by whom.
          ⇑ ∃*x.hack(net)(x)*   why <our network was hacked> = by whom <our network was hacked>

- Voice mismatch in the other direction (16):

(16)   [?] Vice chancellors are appointed, but the regulations don't say *(when, or) which committee.
          ⇑ ∃*x.appt(VCs)(x)*   when <someone appoints VCs> = which committee <*t* appoints VCs>

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[5]Similarly, *either* (i) presages the coming of a second clause which might satisfy identity:

(i)   ? They use them from time to time, but they were not sure either by whom < > or how much < >.

2.6   Two arguments

- Adjunct intermediate sluices so far: *how*, *how much*, *when*, *why*, . . .

- Argumental intermediate sluice:

(17)   ? The news was reporting that the exam board had inadvertently revealed the A-level questions to a certain school ahead of time, but they couldn't say *(to which school, or) by whom.
     ⇑ *reveal(q)(s)(b)*   to which school <the A-level questions had been revealed>
                      = by whom <the A-level questions had been revealed>

- As before, while the meaning is recovered from the preceding spoken material, identity is established between the two ellipses, which mutually license one another.

2.7   Ditransitives

- Further to voice, sluicing disallows ditransitive diathesis (18) (Merchant 2013).

- But mismatch is much improved when bridged by an intermediate sluice:

(18)   ? They served someone milk, but I don't know *(why, or) to whom.
     ⇑ $\exists x.serve(m.)(x)(they)$ why <they served milk to someone> = to whom <they served milk *t*>

2.8   Interim conclusion

- Narrow conclusion regarding mismatch: structural identity conditions on ellipsis can be maintained in the face of apparent counterexamples.

- Broad conclusion regarding ellipsis: double ellipsis mediates mismatches that are impossible in single ellipsis, because recoverability and identity are dissociable.

3   Limits

⇑ Recover meaning from spoken material.   = Identity between mutually licensing ellipses.

- How far removed can the ellipses be from recovered material?   – voice, ditransitives, . . .

- Truth-conditional equivalence?. . .   No – still a role for structural and lexical identity.

3.1   Structural identity

- Structural identity – (19) manipulates the *spray*∼*load* alternation to place conflicting requirements on the elided structure; non-identity results in ungrammaticality:[6]

(19)   * Mary loaded some stuff onto some vehicle, but I don't know (onto which vehicle, or) with what stuff.
     ⇑ *load(stuff)(vehicle)(m)*
     onto which vehicle <she loaded some stuff *t*> *≠ or with what stuff <she loaded the vehicle *t*>

3.2   Lexical identity

- Relational opposites (cf. Hartman 2009) cannot be recovered (*⇑):

(20)   * Someone beat Roger at tennis, but I don't know (when, or) to whom.   *be beaten* ∼ *lose to*
     *⇑ $\exists x.beat(r)(x)$ when <he lost at tennis> = to whom <he lost at tennis>

(21)   * Someone lent John £100, but he won't tell me (on what terms, or) from whom.   *lend* ∼ *borrow*
     *⇑ $\exists x.lend(£100)(j)(x)$ on what terms <he borrowed £100 from someone>
                         = from whom <he borrowed £100 *t*>

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[6]See online Appendix for another potential example involving Left Branch Extraction and discussion of null argument∼PP alternations.

3.3   Auxiliaries

- Downsizing to verb phrase ellipsis (VPE) and a particular case of lexical identity.

- Warner's (1985) Auxiliary Verb Generalization: In VPE headed by an auxiliary verb, the auxiliary must have the exact same morphological form as its antecedent.

(22)   * She was appointed to the board, even though it was unclear (for how long, or) whether she was eligible to.
        $\Uparrow \exists x.appoint(b)(x)$ for how long $<$she **was** appointed to the board$>$
                     *$\neq$ whether she was eligible to $<$**be** appointed to the board$>$

3.4   Interim summary

- So far: double ellipsis mediates argument structure mismatches in sluicing that are impossible with single ellipsis – within the limits of structural identity and lexical recoverability.

- The rest: three brief case studies where recoverability and identity come apart in double VPE.

4   Dahl's many clauses puzzle

4.1   Strict vs. sloppy

- Consider (23), fixing *he* to mean *John*. The single ellipsis has two readings:

(23)   John realises that he$_{(John)}$ is a fool, though Sam doesn't $<\ >$.
       a.   Strict reading, referential ($\rightarrow$) pronoun:
            John realises that he$_{\rightarrow John}$ is a fool, though Sam doesn't $<$realise that <u>John</u> is a fool$>$.
       b.   Sloppy reading, bound (x) pronoun:
            John$_x$ realises that he$_x$ is a fool, though Sam$_x$ doesn't $<$realise that x=<u>Sam</u> is a fool$>$.
       c.   * Disjoint reference:
            * John realises that he$_{(John)}$ is a fool, though Sam doesn't $<$realise that <u>Bill</u> is a fool$>$.

- There is no third reading taking the pronoun to point to someone else, e.g. Bill:

- Yet double ellipsis supports such a third reading (Schiebe 1973, via Dahl 1973).

4.2   The mixed reading

- (24) adds an intermediate elliptical clause to (23).

- Now a third 'mixed' reading is available (c):

(24)   John realises that he$_{(John)}$ is a fool, and Bill does too $<\ >$, though Sam doesn't $<\ >$.
       a.   Both strict: John realises that he$_{\rightarrow John}$ is a fool,
                                and Bill does too $<$realise that <u>John</u> is a fool$>$,
                                though Sam doesn't $<$realise that <u>John</u> is a fool$>$.

       b.   Both sloppy: John$_x$ realises that he$_x$ is a fool,
                                  and Bill$_x$ does too $<$realise that x=<u>Bill</u> is a fool$>$,
                                though Sam$_x$ doesn't $<$realise that x=<u>Sam</u> is a fool$>$.

       c.   Mixed reading: John$_x$ realises that he$_x$ is a fool,
                 sloppy $\nearrow$ and Bill$_x$ does too $<$realise that x=<u>Bill</u> is a fool$>$,
                  strict $\nearrow$ though Sam doesn't $<$realise that <u>Bill</u> is a fool$>$.

- Mixed reading: the pronoun seems to be sloppy for the first ellipsis, but strict for the second.

4.3 Puzzle

- The mixed reading is a problem to the extent that recoverability and identity are intertwined:[7]
    - each ellipsis independently establishes identity with the recoverable spoken material
    - the structure of the recoverable spoken material must be fixed as either strict (a) or sloppy (b)
    - structure cannot oscillate between its ambiguities, as apparently needed for (c) (see Hardt 2021: 6)

4.4 Analysis

- The mixed reading is not a problem if recoverability is dissociated from identity:
    - ⇑ the 'Bill meaning' can be recovered sloppily from the spoken material
    - this meaning can be syntactically represented with a referential pronoun rather than binding
    - i.e. $[\lambda x.\ x \text{ thinks } x \text{ is a fool}](b) = b$ thinks b is a fool   (cf. Dalrymple et al. 1991: 424f.)
    - = the representation with a referential pronoun allows for identity with a 'strict' second ellipsis
    - ⇑ the second ellipsis recovers its meaning strictly from the first

(25) $[\lambda x.\ x \text{ thinks } x \text{ is a fool}]$
                                                           ⇑
                              and Bill does too <realise that Bill is a fool>
                                                          ⇑, =
                              though Sam doesn't <realise that Bill is a fool>

- A 'reverse mixed' reading (26) is correctly predicted to be unavailable, since John ≠ Sam:

(26)   *Reverse mixed: John realises that he$_{\rightarrow John}$ is a fool,
                       strict ↗ and Bill does too <realise that <u>John</u> is a fool>,
                       sloppy ↗ though Sam$_x$ doesn't <realise that x=<u>Sam</u> is a fool>.

- In sum: double ellipsis supports mixed readings that are not available with single ellipsis.

- Mixed readings cease to be puzzling once recoverability and identity are dissociated.

5   Elliptical answers

- In answer to a polar (27) or subject (28) question, verb phrase ellipsis (VPE) (a) is good (vs. fully pronounced (b) controls, SMALL CAPS = focus):

(27)   Did John go shopping?   a. He DID <go shopping>.   b. He DID go shopping.

(28)   Who went shopping?   a. SAM did <go shopping>.   b. SAM went shopping.

- But in answer to an adjunct question (29), VPE (a) is bad:[8]

(29)   Where did John go shopping?   a. *He did <go shopping> in PARIS.   b. He went shopping in PARIS.

- Yet VPE becomes good in answer to the same question in (30), in combination with another elliptical clause with contrasting polarity:

(30)   Where did John go shopping?   He DIDN'T <go shopping> in PARIS; but he DID <go shopping> in LONDON.

- Double ellipsis is good (30) where single ellipsis is bad (29) since recoverability and identity are dissociable:[9]

(31)   ⇑ {*shop'(j)* in $x \in D_{loc}$}   he DIDN'T <go shopping> in PARIS = he DID <go shopping> in LONDON

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[7]A mixed reading can also originate with an exceptionally case-marked reflexive (i). Syntactically, the reflexive in the first ellipsis has to Vehicle Change (Fiengo & May 1994) into a pronoun in the second ellipsis. This does not cause an identity problem in examples like (ii):

(i)   John considers himself a genius, and Bill$_b$ does too <consider himself$_b$ a genius>, though Sam doesn't <consider him$_b$ a genius>.

(ii)   Bill defended himself$_b$ better than his lawyer did <defend him$_b$>.

[8]I don't know why single ellipsis is bad in (29) – see Kuno (1975), Levin (1979), Stockwell (2020: sect. 5.7) for discussion.

[9]The elliptical constituents are identical up to focus: DIDN'T vs. DID, PARIS vs. LONDON. In the terminology of Stockwell (2020, 2022), building on Rooth (1992a,b), the elliptical constituents are 'proper alternatives' to each other.

6 No (overt) linguistic antecedent

- Lesson from double ellipsis: elided material need not establish identity with *overt* linguistic material.

- ⇑ Recover meaning from spoken material.   = Identity between mutually licensing ellipses.

- Empirical payoff: one class of VPE apparently without linguistic antecedents.[10]

- Antecedent-less ellipsis is not usually possible (32) (Hankamer & Sag 1976: 392, ex. 6):

(32) (Context: Sag produces a cleaver and prepares to hack off his left hand.)
   a. Hankamer: #Don't be alarmed . . . he never actually does < >.   *'surface' ellipsis*
   b. Hankamer: Don't be alarmed . . . he never actually does it.   *'deep' pro-form*

- Antecedent-less double ellipsis can be much better (33)-(34):
  - (a) example, (b) contrast with single ellipsis, (c) analysis here
  - ⇑ recoverability from non-linguistic context
  - = identity between non-overt linguistic material

(33) (Context: same as (32).)
   a.   He wouldn't, would he?   (cf. Jacobson 2022: ex. 21)
   b. # He wouldn't. / # Would he?
   c.   ⇑ *cut(hand)(s)*   he wouldn't <cut his hand off> = would he <cut his hand off>

(34) (Context: I see two people clearly thinking about whether to jump into a very cold pool of water at the bottom of a rock formation while hiking. I turn to you and say:)
   a.   You know what? I kind of think that he will if she does.   (Jacobson 2022: ex. 19)
   b. # You know what? I kind of think that he will.
   c.   ⇑ λ*x. jump(x)*   he will <jump> = she does <jump>

- Such ellipses are 'exophoric' (Miller & Pullum 2013) – pointing outside the linguistic discourse to the world – only with respect to recoverability.

- Double ellipsis provides sentence-internal, if non-overt, linguistic material for identity between them.

7 Conclusion

7.1 Summary

- Recoverability and identity are dissociable in double ellipsis.

- A lone ellipsis that fails identity can become possible with respect to the same preceding material if it is bridged by an intermediate ellipsis with which it establishes identity.

- In abstract, recall (4) vs. (5):

(4)   Spoken material
              ⇑, *=
            bad <ellipsis>

(5)   Spoken material
                   ⇑
            intermediate <ellipsis>
                   =
            previously bad <ellipsis> becomes good

- Structural identity conditions on ellipsis can be maintained in the face of apparent counterexamples.

- Clausal ellipsis: voice and other argument structure mismatches, within limits.

- VPE: Dahl's puzzling mixed reading, elliptical answers to questions, 'missing' antecedents.

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[10]Though see online appendix; and setting aside split antecedents (Webber 1978) and lexicalised idioms, e.g. *May I?* (Hankamer 1978).

7.2   Status of ⟨ellipsis⟩

- Broader conclusion: there is syntactic structure inside ellipsis sites.

- Opposing view (e.g. Dalrymple et al. 1991, Hardt 1993, Ginzburg & Sag 2000) could enforce identity as part of recoverability as long as the two are intertwined.

  – e.g., a pro-form embedded in passive structure must source its meaning from a passive antecedent

- But if identity can be satisfied with respect to ellipsis sites in double ellipsis, then there must be structure inside them to evaluate for identity.

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8 Appendices

8.1 Cross-linguistic variation

- Recall note 4: see Citko & Gračanin-Yuksek (2020) for robust argumentation that coordinated and disjoined sluices involve two separate instances of clausal ellipsis.

- Their paper, like this one, is limited to English.

- This provides one reason why double ellipsis might not ameliorate mismatches in other languages: in a language where coordinated and disjoined sluices do not involve two separate instances of clausal ellipsis, there is no double ellipsis and amelioration is not expected.

- Another reason why the capacity of double ellipsis may vary cross-linguistically could have to do with morphology: in languages with richer morphology it might be harder to conjure the syntax of an ellipsis site absent an overt, syntactically identical antecedent.

8.2 Null argument∼PP alternations

- Alternations between null arguments and PPs (35) (Merchant 2013) seem worse (a) than the argument structure alternations discussed in §2, especially with adjectives (b):

(35)   a.   ?(?) John was arguing, but I can't reveal *(when, or) who.
         ?(?)⇑ *argue(j)*   when $<$John was arguing with someone$>$ = who $<$John was arguing with $t>$
   b.   (?)* John was afraid, but I don't know (why, or) what.
         (?)*⇑ *argue(j)*   why $<$John was afraid of something$>$ = what $<$John was afraid of $t>$

- It may be that there is difficulty in adding the preposition to the ellipsis site without an overt clue that this is required (cf. pronunication of *to* in 18).

8.3 Left Branch Extraction

- Another potential limiting case on using double ellipsis to circumvent mismatches – further to §3

- Sluices whose *wh*-remnant has been extracted from a left branch, e.g. adjectives, necessitate 'short sources' (Barros et al. 2014, Abels 2018).

- Of the candidates in (36), only the copula predication structure in (d) is grammatical:

(36)   The government makes frequent use of outside consultants, but it won't say how frequent $<$???$>$.
     a.   * . . . [how frequent] $<$it makes t use of outside consultants$>$.   *active*
     b.   * . . . [how frequent $<$use of outside consultants] it makes $t>$.   *pied piping*
     c.   * . . . [how frequent] $<t$ use of outside consultants is made$>$.   *passive*
     d.   . . . [how frequent] $<$it is $t>$.   *short source*

- Since LBE sluices do not contain 'full source' structure, they should not be able to bridge voice mismatch in double ellipsis.

- (37) is thus predicted to be ungrammatical due to the inequality of (a) and ungrammaticality of (b), in minimal contrast with an example like (38):

(37)   (*) The government makes frequent use of outside consultants, but it won't say how frequent, or by which departments.
     a.   how frequent $<$it is$>$ *≠ by which departments $<$consultants are used$>$
     b.   * . . . by which departments $<$it was$>$.

(38)   The government makes use of outside consultants, but it won't say how frequently, or by which departments.

- Further empirical work is required.

8.4   More on antecedent-less double ellipsis

- Another case of double ellipsis (39):   (cf. Jacobson 2003: 79, ex. 32; 2008: 58, ex. 41a; 2022: ex. 24)

(39)   (Context: I point to one batch of cookies and say:)
    These, you may $<$eat $t>$.
    (Pointing to a second batch I say:)
    Those, you can't $<$eat $t>$ – at least not until they cool down.

- But is the second ellipsis necessary in (39)? It's absent in (40):   (Jacobson 2003: 79, ex. 31)

(40)   (Context: I see you about to grab some cookies:)
    Not those, you don't $<$ $>$.

    – but then again, is a second ellipsis present by strong implication? Cf. stopping at the semicolon in (30a):
      Where did John go shopping? He DIDN'T in PARIS. . .

    – or is (40) idiomatic, lexicalised? Cf. *Not in my wastebasket, you don't!* (Hankamer & Sag 1976: fn. 19).

- Double ellipsis across speakers (41)?   (Jacobson 2022: ex. 20)

(41)   (Scenario: I see my friend Chris at the top of a double diamond ski slope, and I know he is only a beginner
    skier. You are concerned and say:) Do you think he really might $<$ $>$?
    (I turn to you and say:) No don't worry. I don't think he really will $<$ $>$.

- (42) is definitely a problem for the present proposal: (Jacobson 2022: ex.25):

(42)   (Scenario: Dad is with two of his kids, Keela and Zack. Keela (the older) has been trying to tell Dad for
    quite some time that she is very independent and doesn't need help typing her shoes. But Dad is a creature
    of habit, so he reaches down to help Keela – who says:)
     a. Keela: Dad. Please! Stop! I DON'T WANT you to!!!
    (Dad then reaches down to help Zack. But Zack likes to copy his big sister and so says:)
     b. Zack (after Dad tries to help him): And I don't want you to either!!!!
    (Moreover, can elaborate to add in some more kids all of whom want to be independent. Leah – one of the
    younger kids – then says:)
     c. Leah: Yeah Dad, don't you get it? None of us want you to.
     – (a) is fine on it's own – other speakers' ellipses not necessary
     – (a) is also fine without *Stop!* – so regardless of any possible double ellipsis there

- Potential double ellipsis in (43), though only "marginally possible" (Jacobson 2008: 58, ex. 41b):

(43)   (Context: Bill is at a dog park, and is trying to pet each dog. Most of the dogs are quite unsocialized, and
    don't like to be petted – with the exception of Kolya. So, as he tries to pet Mitka, I turn to him and say:)
    ?? Better not ($<$ $>$) – I think Kolya is the only one who would actually like you to $<$ $>$.

8.5   Identity glitches elsewhere

- Case matching in free relative clauses.

- Case conflicts are tolerated so long as they are not morphologically expressed.

- van Riemsdijk (2017: exx. 19, 20):

- The case of a free relative (FR) must match with the case of the *wh*-word that forms it; e.g. German (44):

    – (a) grammatical: the nominative *wh*-word is the subject of the FR, which is the subject of the sentence
    – (b) ungrammatical: the *wh*-word needs to be accusative inside the FR, but the FR as a whole needs to
      be nominative as the subject of the sentence

(44) a. [$_{DP_{NOM}}$ Wer$_{NOM}$ *t* nicht stark ist] muss klug sein.
        who   not strong is must clever be.
     'Who is not strong must be clever.'

   b. * [$_{DP_{NOM}}$ { $^{Wen_{ACC}}_{Wer_{NOM}}$ } Gott schwach *t* geschaffen hat] muss klug sein.
         who   God weak   created has must clever be.
     'Who God has created weak must be clever.'

- Syncretism supports mismatching case (45) – *was* is syncretic for nominative and accusative:

(45) [$_{DP_{NOM}}$ Was$_{ACC}$ du *t* gekocht hast] ist schimmlig.
    What you cooked have is moldy.
  'What you have cooked is moldy.'

- Satisfying identity by taking { case morphology / ellipsis } in two ways.