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Participant switching verb phrase ellipsis

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by

Richard Stockwell

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ABSTRACT OF THE THESIS

Participant switching verb phrase ellipsis

by

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Master of Arts in Linguistics

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This thesis engages with the issue of identity in ellipsis by adding verb phrase ellipsis with symmetrical predicates to the literature on ellipsis mismatches. Symmetrical predicates support participant and transitivity switching verb phrase ellipsis, where syntactic identity between the antecedent and elided verb phrases is lacking. This kind of ellipsis is accounted for under a semantic identity condition, where the antecedent verb phrase must entail the elided one (cf. Fox 2000), though not necessarily vice versa (cf. Merchant 2001). Intensionality plays a crucial role in circumventing redundancy or contradiction, whose incompatibility with ellipsis falls under extensions to L(ogical)-triviality (Gajewski 2009).

The thesis of Richard Stockwell is approved.

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Contents

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All the errors are mine.

1.   Introduction

On the traditional view, ellipsis requires an identity relation with an antecedent. But the literature is full of cases of ellipsis mismatch, such as Vehicle Change in (1) (Fiengo & May 1994) and active/passive voice in (2) (Merchant 2008: 169, ex. 2b) (<angled> brackets = unpronounced structure; antecedent and elided verb phrases (VPs) <u>underlined</u>).

(1)   Mary <u>admires John$_1$</u>, and he$_1$ thinks Sally does <<u>admire *John$_1$/him$_1$</u>> too.

(2)   The janitor must <u>remove the trash</u> whenever it is apparent

       that it should be <<u>removed</u>>.

To the mismatch literature, this paper adds participant and transitivity switch mismatches in verb phrase ellipsis (VPE), which to my knowledge have not been discussed before. In participant switching VPE, as in (3) and (4), the subject and object participants switch between the antecedent and elided VPs; while in transitivity switching VPE, as in (5), the antecedent and elided VP switch from intransitive to transitive (a), or from transitive to intransitive (b).

(3)   EU referendum: Merkel will <u>work with Cameron</u> on EU – but will Tories let him

      <<u>work with Merkel</u>>?   (*Guardian* online, 2015-05-09)[1]

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(4)   John$_1$ wanted to <u>dance with Mary$_2$</u>, but she$_2$ didn't want to <<u>dance with him$_1$</u>>.

(5)   a.   John$_1$ and Mary$_2$ <u>met</u>, even though she$_2$ didn't want to <<u>meet (with) him$_1$</u>>.

        b.   John$_1$ <u>met (with) Mary$_2$</u>, even though they$_{1+2}$ weren't supposed to <<u>meet</u>>.

Previous approaches to identity and mismatch do not straightforwardly account for participant and transitivity switching VPE. Simplistic syntactic identity does not hold: the object changes between the antecedent and elided VPs under participant switching, and comes and goes under transitivity switching. Switch mismatches are not within the purview of Vehicle Change (Fiengo & May 1994), which can only alter the binding-theoretic status and gender of a DP: not its reference – for participant switching; nor its presence – for transitivity switching. And applying Merchant's (2013) analysis of voice mismatches in ellipsis to (4) yields the unintuitive continuation in (6), which would be marginal if overt.

(6)   ?? John$_1$ wanted to <u>dance with Mary$_2$</u>, but she$_2$ didn't want to

        <<u>be danced with by him$_1$</u>>.

Rather, this paper accounts for participant and transitivity switching VPE under a semantic theory of ellipsis licensing, where the antecedent VP must entail the elided VP (cf. Fox 2000).

In outline, §2 establishes the empirical generalisation that participant and transitivity switching VPE are only possible with symmetrical predicates. §3 then shows how these cases of ellipsis are licensed by entailment. §4 explores the implications of different sizes of participant switching

VPE for a cyclic theory of ellipsis. §5 discusses the role of intensionality. This leads to the novel observation that ellipsis of redundant or contradictory material is ungrammatical, which the excursus §6 aims to account for. §7 returns to participant switching VPE, arguing for the presence of syntactic structure in the ellipsis site, while §8 shows that discourse coherence relations do not interact with it. Finally, §9 demonstrates that ambiguities are interpreted in the same way in both the antecedent and the ellipsis site, before §10 concludes.

2. Symmetry

Participant switching VPE is possible only with symmetrical predicates: e.g. *work with* in (3), *dance with* in (4), *meet (with)* in (7).[2, 3] The predicate *meet* fits the definition of symmetry as in (8).[4]

(7)   John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but she$_2$ didn't want to <<u>meet (with) him$_1$</u>>.

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[2] I argue that the syntactic structure in the ellipsis site takes the form in (7), as opposed to (i) with a partial control PRO. In (i) – suggested to me by Seth Cable (p.c.) – PRO is partially controlled by *she$_2$*, with John's index added to satisfy the plurality seeking predicate *meet*.
      (i)   John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but she$_2$ didn't want to <PRO$_{1+2}$ meet>.
It might be claimed that (i) is more parsimonious, since a fuller representation of (7) would already include an obligatory control PRO, as in (ii).
      (ii)   John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but she$_2$ didn't want to <PRO$_2$ meet (with) him$_1$>.
However, participant switching VPE is not restricted to control contexts. In cases like (iii), where the elided VP is not introduced by a control verb, there cannot be a PRO; the only structural option is a *with*-phrase.
      (iii)   John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but (in the end) she$_2$ didn't <(*PRO) meet (with) him$_1$>
Since the PRO structure is only possible with control verbs, while the *with*-phrase structure is possible in all cases of participant and transitivity switching VPE, I assume the *with*-phrase structure throughout.

[3] The ellipsis site in (7) could equally well contain the proper name *John*. I arbitrarily show pronouns in the ellipsis site, here and throughout.

[4] Predicates like *meet* are semantically symmetrical, putting aside the non-truth-conditional Figure-Ground (Talmy 1983) information structure contributions of syntax (Gleitman et al. 1996).

(8)   Symmetry: For all x, y: $xRy \Leftrightarrow yRx$[5]

      e.g. *meet*: For all x, y: x meet y $\Leftrightarrow$ y meet x

Non-symmetrical predicates, on the other hand, do not support participant switching VPE, as shown for *criticise* in (9).

(9)   *John$_1$ <u>criticised Mary$_2$</u>, even though she$_2$ wasn't supposed to <<u>criticise him$_1$</u>>.

Symmetrical *with*-predicates all support participant switching VPE – even VP-level predicates like *build a house with* in (10). Crucial is the symmetric semantic contribution of *with* rather than its syntax: participant switching VPE is not made possible by *with* in the non-symmetrical idiom *mess with* in (11).

(10)   John$_1$ <u>built a house with Mary$_2$</u>, even though she$_2$ didn't want to

      <<u>build a house with him$_1$</u>>.

(11)   *John$_1$ wanted to <u>mess with Mary$_2$</u>, but she$_2$ didn't want to <<u>mess with him$_1$</u>>.

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[5] Many symmetrical predicates additionally require $x \neq y$, as shown for *meet* in (iv). This requirement rules out the strict reading of (7) shown in (v), modulo Vehicle Change from *Mary* to *herself*.

      (iv)   *John$_1$ met himself$_1$.

      (v)   *John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but she$_2$ didn't want to <<u>meet (with) herself$_2$</u>>.

Participant switching does not arise only to 'repair' cases like (v), however. Other symmetrical predicates, like *talk with* in (vi), allow $x = y$. The ellipsis in (vii) is then ambiguous between the strict reading with *herself*, and the participant switch reading with *him*.

      (vi)   John$_1$ talked with himself$_1$.

      (vii)   John$_1$ wanted to <u>talk with Mary$_2$</u>, but she$_2$ didn't want to <<u>talk with herself$_2$/him$_1$</u>>.

4

Transitivity switching VPE is only possible with symmetrical predicates that have transitive and intransitive alternates – e.g. *meet* in (5), or *dance (with)* in (12).

(12)   a.   John$_1$ and Mary$_2$ <u>danced</u>, even though she$_2$ didn't want to <<u>dance with him$_1$</u>>.

      b.   John$_1$ <u>danced with Mary$_2$</u>, even though they$_{1+2}$ weren't supposed to <<u>dance</u>>.

3.   Entailment

3.1   The licensing condition

Participant switching VPE causes syntactic mismatches according to a semantic generalisation – the predicate must be symmetric, as in (8). It is therefore appropriate to pursue a semantic licensing condition for this kind of ellipsis. Semantic licensing conditions are generally stated in terms of entailment relations between the antecedent and elided VPs (Fox 2000, Merchant 2001, i.a.), as in (13).[6]

(13)   A VP ε can be elided only if ε has a salient antecedent VP α and, modulo ∃-type shifting over VP-internal subjects,[7]

      α entails ε.

Conceiving of the licensing condition in (13) in terms of events (cf. Thoms 2013), where predicates take event variables as arguments (Davidson 1967), let us assume that the licensing condition

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[6] The ellipsis licensing condition in (13) states a semantic condition of mutual entailment over syntactic VP constituents; but if we assume some version of phase theory, then VP is also a 'semantic constituent'.
[7] VP-internal subjects include PRO and lower copies of subjects raised to the spec-TP.

evaluates VPs for ellipsis in the abstract: it proceeds as if both VPs contained the same event variable, and ignores other aspects of the sentence like intensionality. After showing as much for standard cases of VPE, I will show how the condition in (13) applies to participant and transitivity switching VPE.

3.2 VPE with event variables

To begin, consider a standard case of VPE, like (14).

(14)   Mary <u>bought *Harry Potter*</u>, and Jane did <<u>buy *Harry Potter*</u>> too.

The VPs in (14) are evaluated for ellipsis as in (15). The licensing condition assumes that both VPs contain the same event variable, e, and ellipsis is licensed: that someone bought *Harry Potter* entails itself, trivially.

(15) $\alpha = \varepsilon = [_{VP}$ buy HP$] \approx \exists x.$ buy(e)($<$x, HP$>$)

       α entails ε, ✓ellipsis

If, instead, each VP was assumed to contain a different event variable, as shown by the indices in (16), there would be no entailment: one event of someone buying *Harry Potter* does not entail a second, separate event of someone buying *Harry Potter*. By (13), ellipsis would then not be licensed, contrary to fact.

(16) $\alpha = \epsilon = [_{VP}$ buy HP$] \approx \exists x.$ buy$(e_1)(<x,$ HP$>)$

  $\alpha = \epsilon = [_{VP}$ buy HP$] \approx \exists x.$ buy$(e_2)(<x,$ HP$>)$

  α does not entail ϵ, ✗ ellipsis

The licensing condition in (13) must therefore assess entailment on the assumption that both VPs contain the same event variable. This assumption abstracts away from the sentence as a whole: in its overall interpretation, (14) talks about two events: the event variables in each VP are separately bound, giving rise to two different events of buying *Harry Potter* – one carried out by Mary, and a second by Jane. But for ellipsis licensing, the antecedent and elided VPs are evaluated as if they referenced the same event.

The assumption that both VPs contain the same event variable remains at play in (17), where the licensing condition must additionally abstract away from intensionality. The second conjunct in (17) has the truth conditions in (18).

(17) Mary <u>bought *Harry Potter*</u>, and Sarah wanted to <<u>buy *Harry Potter*</u>>, too.

(18) [[Sarah wanted to buy *Harry Potter*]]

  $= 1$ iff DES$_{Sarah,@} \subseteq \{w \; \epsilon \; D_S : \exists e.$ buy$_w(e)(<$Sarah, HP$>)\}$

By (18), there is a distinct event of Sarah buying *Harry Potter* at each world in the set of her desire worlds. But the licensing condition on ellipsis abstracts away from the intensionality in the overall sentence, instead evaluating the VPs for entailment in isolation. Under the assumption that that

7

both VPs contain the same event variable (in the same world), ellipsis is licensed in (17) in exactly the same way as in (14).

3.3   Participant and transitivity switching VPE

Consider now a case of participant switching VPE, as in (7).

(7)   John$_1$ wanted to <u>meet (with) Mary$_2$</u>, but she$_2$ didn't want to <<u>meet (with) him$_1$</u>>.

We have seen that the ellipsis licensing condition abstracts away from aspects of the overall sentence like intensionality, assessing entailment under the assumption that both VPs contain the same event variable. Thus ellipsis in (7) is evaluated with respect to the representations in (19).

(19) $\alpha = [_{VP} \text{ meet Mary}] \approx \exists x. \text{meet}(e_4)(<x, \text{Mary}>)$

    $\varepsilon = [_{VP} \text{ meet John}] \approx \exists y. \text{meet}(e_4)(<y, \text{John}>)$

Entailment does not go through in (19) for just any choice of e: a meeting event involving Mary does not entail that the same meeting event involves John. However, entailment does go through in (19) when e is a meeting event involving both John and Mary. The first conjunct of (7), *John wanted to meet Mary*, makes such an event salient. Evaluated with respect to such an event, entailment goes through from α to ε in (19), and ellipsis is licensed.

Ellipsis is licensed in transitivity switches like (5a) along the same lines. So long as e_4 is a meeting event involving both John and Mary – as made salient by the first conjunct – entailment goes through from α to ε in (20).

(5a) John$_1$ and Mary$_2$ <u>met</u>, even though she$_2$ didn't want to <<u>meet (with) him$_1$</u>>.

(20) α = [$_{VP}$ meet] ≈ ∃X. meet(e_4)(X)

ε = [$_{VP}$ meet John] ≈ ∃y. meet(e_4)(<y, John>)

Consideration of non-symmetrical predicates shows that the choice of e is limited to minimal events in the sense of Heim (1990). Due to the symmetry of *meet*, both VPs are compatible with the same minimal event in (19), since meeting events involve (at least) two equal participants. Compare non-symmetrical *criticise* from (9). As indicated in (21), no choice of e is compatible with both VPs, since there is no minimal event of criticising where both Mary and John are the theme. Such an event would be composed of two events – one of someone criticising Mary, and another of someone criticising John – and so is not minimal. Further, such an event is not made salient by the first conjunct, unlike in (7). Since there is no minimal e for which α entails ε, ellipsis is not licensed in (21).

(9) *John$_1$ <u>criticised Mary$_2$</u>, even though she$_2$ wasn't supposed to <<u>criticise him$_1$</u>>.

(21) α = [$_{VP}$ criticise Mary] ≈ ∃x. criticise($e_?$)(<x, Mary>)

ε = [$_{VP}$ criticise John] ≈ ∃y. criticise($e_?$)(<y, John>)

The remainder of this section shows that the account correctly predicts the obligatoriness of participant switching; argues that entailment is unidirectional from α to ε; and comments on the interaction between transitivity switching and the reciprocal anaphor *each other*.

3.4   Obligatory participant switching

Since entailment only goes through relative to the same minimal event in participant switching VPE, we predict that the participants must remain the same across α and ε. Thus the participant switch reading is forced in (22), even in the presence of another potential antecedent: the elided pronoun *him* must corefer with John, not Bill.

(22)   Bill$_3$ wanted John$_1$ to <u>meet (with) Mary$_2$</u>, but she$_2$ never did <u><meet (with) him$_{1/*3}$></u>.

For the same reason, the participant switch reading is impossible in (23), where the subject of ε is not a participant in the event associated with α; though ellipsis is still licensed with the non-switched reading.

(23)   John$_1$ wanted to meet <u>Mary$_2$</u>, but Bill$_3$ didn't want to <meet <u>her$_2$/*him$_1$</u>>.

3.5   Unidirectional entailment

The licensing condition in (13) follows Fox (2000) in requiring entailment only from α to ε. By contrast, Merchant's (2001) condition requires mutual entailment between α and ε. While our

examples so far would be compatible with either theory, the behaviour of partially symmetrical predicates under participant switching VPE argues for unidirectional rather than mutual entailment.

Fully symmetrical predicates like *meet* have the entailment pattern in (24): intransitive *meet* entails both transitive alternates, which in turn (individually) entail back to the intransitive. By contrast, predicates like *kiss* have the entailment pattern in (25): in its intransitive guise, *kiss* is symmetrical, denoting a mutual kiss (on the lips) that entails the two transitive conjuncts; but in its transitive guise, *kiss* is not symmetrical, since it denotes a unidirectional kiss (on the cheek).[8]

(24)   John and Mary met ⟷ John met Mary ∧ Mary met John

(25)   John and Mary kissed ⟶ John kissed Mary ∧ Mary kissed John

Unsurprisingly, non-symmetrical transitive *kiss* does not support participant switching VPE in (26), since there is no entailment relation between α and ε. Tellingly, symmetrical intransitive *kiss* only partly supports transitivity switching. Like *meet* in (5), in (27) *kiss* supports the transitivity switch from intransitive to transitive in (a); but unlike *meet*, *kiss* does not support transitivity switching from transitive to intransitive in (b).

(26')   *John$_1$ kissed Mary$_2$, even though she$_2$ didn't want to <kiss him$_1$>.

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[8] See Winter (2016), who terms predicates like *meet* plain reciprocals, and those like *kiss* pseudo reciprocals.

(27) a.   John$_1$ and Mary$_2$ <u>kissed</u>, even though she$_2$ didn't want to <<u>kiss him$_1$</u>>.

  b.   * John$_1$ <u>kissed Mary$_2$</u>, even though they$_{1+2}$ didn't want to <<u>kiss</u>>.

The contrast in (27) derives from the unidirectionality of the entailment pattern for *kiss* in (25). Entailment between α and ε is unidirectional in both (a) and (b): in (a), α entails ε, and ellipsis is grammatical; whereas in (b) ε entails α, and ellipsis is ungrammatical. Thus the data in (27) support Fox (2000) over Merchant (2001): transitivity switching VPE is licensed by unidirectional rather than mutual entailment from α to ε.[9]

3.6   Transitivity switching with *each other*

Add the reciprocal anaphor *each other* to symmetrical predicates, and they continue to support transitivity switching VPE. Parallel to the transitivity switches with *dance (with)* in (12), *dance with each other* tolerates mismatching VPE in (28). Regardless of *each other*, the symmetry of *dance (with)* means that α entails ε given a suitable choice of minimal e – a meeting event involving both John and Mary.

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[9] For a review of other challenges to mutual entailment, see Hartman (2009). For example, mutual entailment incorrectly predicts that ellipsis should be licensed in (viii), since relational opposites entail one another.

  (viii)   *John will <<u>beat someone at chess</u>>, and then Mary will <<u>lose to someone at chess</u>>.

(28) a. John$_1$ and Mary$_2$ <u>danced with each other$_{1+2}$</u>, even though she$_2$ didn't

want to <<u>dance with him$_1$</u>>.   (cf. Hardt 1993: 23, ex. 71)

b. John$_1$ <u>danced with Mary$_2$</u>, even though they$_{1+2}$ didn't want to

<<u>dance with each other$_{1+2}$</u>>.

For some speakers, however, adding *each other* improves on intransitive-to-transitive switching with non-symmetrical predicates, like *criticise* in (29).

(29) a. % John$_1$ and Mary$_2$ <u>criticised each other$_{1+2}$</u>, even though she$_2$ didn't want to

<<u>criticise him$_1$</u>>.

b. * John$_1$ <u>criticised Mary$_2$</u>, even though they$_{1+2}$ didn't want to

<<u>criticise each other$_{1+2}$</u>>.

Having seen that ellipsis is licensed by unidirectional entailment from α to ε, the ungrammaticality of (29b) is expected. The variation in judgements for (29a), on the other hand, might be surprising, since *each other* has introduced entailment from α to ε: *John and Mary criticised each other* entails *Mary criticised John*. However, the question remains as to whether there is a minimal event suitable for both VPs. Standardly, *each other* is taken to interact with non-symmetrical predicates to introduce an accumulation of events (Partee 2008, Siloni 2012). It seems that speakers who reject (29a) are unable to evaluate entailment against a reciprocal event of John and Mary criticising each other, since they construe such an event as a non-minimal accumulation of criticising events. Speakers who accept (29a), on the other hand, are able to construe a reciprocal

event of John and Mary criticising each other as a minimal event, in view of which entailment holds.[10]

4.   Cyclic VPE

Different focus-marking (Rooth 1992) triggers ellipses of different sizes in participant switching VPE. So far, we have considered examples like (4).

(4)   John₁ wanted to <u>dance with Mary₂</u>, but she₂ didn't want to <<u>dance with him₁</u>>.

In (4), where *want to* is overt, there is only one choice regarding the size of the elided VP. Compare (4) with (30) and (31), where what is pronounced ends at *didn't* (CAPS = focal stress intonation).

(30)   John₁ wanted to <u>dance with Mary₂</u>, but she₂ DIDN'T <<u>dance with him₁</u>>.

(31)   John₁ <u>wanted to dance with Mary₂</u>, but SHE₂ didn't <<u>want to dance with him₁</u>>.

When one VP contains another, we usually find ambiguity, with either the higher or the lower VP able to serve as the antecedent for VPE. However, this ambiguity is resolved for (30) and (31) by focus. In (30), with focus-marking on *didn't*, only the lower VP is understood as elided. Focus

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[10] Also relevant might be the fact that the entailment relation is only introduced by virtue of the antecedent of *each other* being a pair – John and Mary in (29a). In the general case, where the plural antecedent has more than two members, the availability of a weak reading for the reciprocal will block entailment. For example, (ix) cannot entail that any given tray is stacked on top of another.
> (ix)   The trays were stacked on top of each other.   (Fiengo & Lasnik 1973: 455)

on the negation sets up a contrast regarding the actuality of the dancing event: between John's desire worlds, where the event occurs; and the actual world, where it does not. In (31), on the other hand, the higher VP is understood as elided. Focus on *she* sets up a contrast between John and Mary with respect to wanting to dance with the other.

The licensing condition in (13) accounts for VPE in (30) in the same way as for (4): evaluated with respect to an event of John and Mary meeting, entailment goes through from α to ε. But the grammaticality of (31) presents a problem: there is no entailment relation between α and ε in (31), since *want* is not symmetrical.

We might look to account for (31) in terms of cyclicity.[11] Tomioka (2008) argues that VPE can proceed cyclically, with ellipsis of a lower VP licensed before, and separately from, ellipsis of a higher VP that contains it. The motivating data are cases of so-called sloppy VPE, as in (32), where an elided VP is understood to be composed of parts of two different antecedent VPs.

(32)   I'll help you if you want me to <help you>.

        I'll kiss you even if you don't <want me to <kiss you>>.

Rejecting analyses of (32) in terms of VP binding (Hardt 1999, Schwarz 2000), Tomioka (2008) proposes to derive ellipsis of *want me to kiss you* in two steps. First, ellipsis of the lower VP *kiss*

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[11] One might be tempted to account for (31) as a transparency effect of *want* as a restructuring verb (Rizzi 1978), where the monoclausal restructured *want-dance-with* inherits the symmetry of *dance-with*. However, examples parallel to (12) with non-restructuring predicates, such as *claim* in (x), continue to allow ellipsis of the higher VP under participant switching.
        (x)   John₁ claimed to have danced with Mary₂, but SHE₂ didn't <claim to have danced with him₁>.

you is licensed by identity in the usual way. The internal content of the elided lower VP is then disregarded, rendering the higher VP of the form *want me to <VP>*. Now ellipsis of the higher VP can be licensed by identity with its antecedent, which also contains a silent VP.

We could apply a two-step procedure to (31), as in (33). First, the lower VP *dance with him* would undergo ellipsis in the usual way. The higher VP, now of the form *want to <VP>*, would be licensed as a second step. Example (34) provides evidence for the first step in this analysis by showing that symmetry in the lower VP is crucial.

(33) John$_1$ <u>wanted to dance with Mary$_2$</u>, but SHE$_2$ didn't <u><want to <u><dance with him$_1$></u>></u>.

(34) *John$_1$ <u>wanted to criticise Mary$_2$</u>, but SHE$_2$ didn't <u><want to <u><criticise him$_1$></u>></u>.

However, there is a major difference between Tomioka's two-step procedure for so-called sloppy VPE, and its application to our participant switch cases. In (32), the higher VP is licensed by identity with an antecedent that also contains a silent VP. Indeed, the silent VP is crucial – without ellipsis of *help you* in the first sentence in (35), the so-called sloppy reading is not available.

(35) I'll <u>help you</u> if you <u>want me to help you</u>.

I'll kiss you even if you don't <u><want me to help you / *kiss you></u>.

In (33), by contrast, the second step of ellipsis of the higher VP would be licensed by identity with an entirely overt VP. The difference is schematised in (36) (~~strikethrough~~ = elided structure; VP-h = higher VP; VP-l = lower VP).

(36)   so-called sloppy VPE, (32): α = [VP-h ~~[VP-l]~~] ϵ = ~~[VP-h [VP-l]]~~

         high participant switching VPE, (33): α = [VP-h [VP-l]] ϵ = ~~[VP-h [VP-l]]~~

I leave it to future work to determine the import of this difference for whether cyclic VPE is equally applicable to participant switching VPE as to so-called sloppy VPE.

5.   Intensionality vs. triviality

5.1   Avoiding redundancy and contradiction in participant switching VPE

While *want* introduces both the antecedent and elided VPs in (4), it is sufficient for it to introduce only the antecedent VP, as in (37), or only the elided VP, as in (38):[12, 13]

(4)   John$_1$ **wanted** to <u>dance with Mary$_2$</u>, but she$_2$ didn't **want** to <<u>dance with him$_1$</u>>.

(37)   John$_1$ **wanted** to <u>dance with Mary$_2$</u>, and (in the end) she$_2$ did <<u>dance with him$_1$</u>>.

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[12] To the extent that modality is involved here, compare Romance languages, which do not have VP ellipsis, but do have modal ellipsis (Dagnac 2010).

[13] The subject of *want* need not be one of the participants in the participant switching event; recall (22).
    (22)   Bill$_3$ **wanted** John$_1$ to <u>meet (with) Mary$_2$</u>, but she$_2$ never did <<u>meet (with) him$_{1/*3}$</u>>.

(38)   John$_1$ <u>danced with Mary$_2$</u>, even though she$_2$ didn't **want** to <<u>dance with him$_1$</u>>.

Where *want* introduces neither the antecedent nor elided VP in (39) and (40), the result is ungrammatical.[14]

(39)   *John$_1$ <u>danced with Mary$_2$</u>, and she$_2$ did <<u>dance with him$_1$</u>>, too.

(40)   *John$_1$ <u>danced with Mary$_2$</u>, but she$_2$ didn't <<u>dance with him$_1$</u>>.

The second conjunct in (39) is redundant, while (40) is a contradiction. Redundancy and contradiction arise in (39) and (40) from talking about the same symmetrical event twice in the world of evaluation. In (4, 37, 38), by contrast, at least one of the antecedent or elided VPs is interpreted relative to its subject's desire worlds. This quantification over worlds means redundancy and contradiction do not arise: it is not redundant in (37) to assert that the evaluation world was a member of John's desire worlds; nor is it contradictory in (38) for the evaluation world not to be a member of Mary's desire worlds.

Generalising from (4, 37, 38), *want* is a partial control predicate. All partial control predicates – e.g. *glad* in (41) – support participant switching VPE. In quantifying over worlds (Pearson 2016), they circumvent redundancy and contradiction.

(41)   John$_1$ <u>danced with Mary$_2$</u>, and she$_2$ was **glad** to <<u>dance with him$_1$</u>>.

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[14] Note the ellipsis in (39) and (40), which the next subsection shows to be crucial.

Modals – e.g. *should* in (42) – likewise quantify over worlds (Lewis 1973, Kratzer 1981) and support participant switching VPE.

(42)   John$_1$ **should** have <u>danced with Mary$_2$</u>, but (in the end) she$_2$ didn't

        <<u>dance with him$_1$</u>>.

Aspectual and implicative verbs, on the other hand, do not support participant switching VPE. Aspectual verbs – e.g. *start* in (43) – are extensional, thereby giving rise to redundancy and contradiction in the same way as (39) and (40).

(43)   a.   *John$_1$ **started** to <u>dance with Mary$_2$</u>, and she$_2$ did <<u>dance with him$_1$</u>>, too.

     b.   *John$_1$ **started** to <u>dance with Mary$_2$</u>, but she$_2$ didn't <<u>dance with him$_1$</u>>.

Implicative verbs – exemplified in (44) – are attitudinal, but generally either assert or deny the truth of their complements: in (a), *dare* entails the occurrence of the dancing event, making for a contradiction; while in (b), *neglect* entails the non-occurrence of the dancing event, making for redundancy in the second conjunct.

(44)   a.   *John$_1$ **dared** to <u>dance with Mary$_2$</u>, but she$_2$ didn't <<u>dance with him$_1$</u>>.

     b.   *John$_1$ **neglected** to <u>dance with Mary$_2$</u>, and she$_2$ didn't <<u>dance with him$_1$</u>>.

The implicative verb *try* does not commit to the success or failure of its complement. Still, it entails the occurrence of a preparatory stage of the embedded event in the evaluation world (Sharvit 2003, Grano 2011), giving rise to contradiction in (45).

(45) *John₁ **tried** to <u>dance with Mary₂</u>, but (in the end) she₂ didn't <<u>dance with him₁</u>>.

Overall, aspectual and implicative verbs entail the (non-)occurrence of (at least a preparatory stage of) their embedded event, and so fail to alleviate the redundancy or contradiction that arises from talking about the same symmetrical event twice in the evaluation world. By contrast, partial control predicates and modals quantify over worlds and lack such entailments, meaning they support participant switching VPE.[15]

As it turns out, these facts fit a broader pattern, laid out in the next subsection, which to my knowledge has gone unnoticed in the literature: redundant and contradictory material cannot be elided.

5.2 Ellipsis isn't trivial

The previous subsection divided predicates into those that support participant switching VPE and those that don't in terms of redundancy and contradiction. This is a generalisation, not an

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[15] As mentioned with respect to (37) and (38), it is sufficient for an intensional predicate to introduce only the antecedent VP, or only the elided VP. This remains true even where the other VP is introduced by an aspectual or implicative verb, like *try* in (xi).

      (xi)   John₁ tried to <u>dance with Mary₂</u>, but she₂ didn't want to <<u>dance with him₁</u>>.

explanation. A direct appeal to redundancy and contradiction to explain ungrammaticality would be undermined by the fact that we can say tautologous and contradictory things. Note that the ungrammatical (39) and (40), repeated here as (46), contain ellipsis; but the corresponding examples without ellipsis in (47) are merely infelicitous, rather than ungrammatical.

(46) a.   *John$_1$ <u>danced with Mary$_2$</u>, and she$_2$ did <<u>dance with him$_1$</u>>, too.

     b.   *John$_1$ <u>danced with Mary$_2$</u>, but she$_2$ didn't <<u>dance with him$_1$</u>>.

(47) a.   #John$_1$ danced with Mary$_2$, and she$_2$ danced with him$_1$, too.

     b.   #John$_1$ danced with Mary$_2$, but she$_2$ didn't dance with him$_1$.

Adding material (and intonation) that comments on the tautology or contradiction alleviates the infelicity of (47), as in (48); but even with this additional material, applying ellipsis to (48) yields the degraded examples in (49).

(48) a.   John$_1$ danced with Mary$_2$, and so – of course! – she$_2$ danced with him$_1$!

     b.   John$_1$ danced with Mary$_2$, but – strangely – she$_2$ didn't dance with him$_1$…

(49) a.   ??John$_1$ <u>danced with Mary$_2$</u>, and so – of course! – she$_2$ did <<u>dance with him$_1$</u>>!

     b.   ??John$_1$ <u>danced with Mary$_2$</u>, but – strangely – she$_2$ didn't <<u>dance with him$_1$</u>>…

Examples with aspectual and implicative verbs pattern the same way. Illustrating with *start* and contradiction in (50), they are ungrammatical with ellipsis (a), but merely infelicitous without

ellipsis (b). Adding material that comments on the contradiction alleviates this infelicity (c); but even then, applying ellipsis yields degradation (d).

(50)　a.　　*John$_1$ started to <u>dance with Mary$_2$</u>, but she$_2$ didn't <<u>dance with him$_1$</u>>..

　　　b.　　#John$_1$ started to dance with Mary$_2$, but she$_2$ didn't dance with him$_1$.

　　　c.　　John$_1$ started to dance with Mary$_2$, but – strangely – she$_2$ didn't
　　　　　　dance with him$_{1...}$

　　　d.　　??John$_1$ started to <u>dance with Mary$_2$</u>, but – strangely – she$_2$ didn't
　　　　　　<<u>dance with him$_1$</u>>.

In sum, ellipsis is ungrammatical in (46), and with aspectual and implicative verbs, cases which are unified in involving redundancy or contradiction.

In fact, ellipsis of redundant or contradictory material seems to be ungrammatical well beyond participant switching VPE. Take, for example, the tautology in (51): whereas (a) conveys that the speaker doesn't care whether *he$_1$* comes, (b) with ellipsis is ungrammatical.

(51)　a.　　If he$_1$ comes, he$_1$ comes.

　　　b.　　* If he$_1$ <u>comes</u>, he$_1$ does <<u>come</u>>.

In an excursus from the main topic of participant switching verb phrase ellipsis, the next section aims to account for this fact in terms of L(ogical)-triviality (Gajewski 2009).

6.   L-triviality

Gajewski (2009) recounts three empirical domains where triviality – i.e. tautology or contradiction – have been invoked to account for ungrammaticality: the definiteness effect in *there*-existentials (Barwise and Cooper 1981); the selection properties of connected exceptives (von Fintel 1993, Gajewski 2008a); and negative islands in comparatives (Gajewski 2008b, following von Stechow 1984). Abrusan (2014) adds her own proposal for weak islands; negative polarity items (Chierchia 2004, 2013); and the unacceptability of negative degree islands and certain puzzles regarding numeral quantifiers (Fox and Hackl 2007).

However, direct appeals to redundancy and contradiction to explain ungrammaticality are undermined by the fact that we can say tautologous and contradictory things. We noted this for participant switching VPE in (48), and for the tautology in (51a). Gajewski (2009: ex. 27) offers the examples in (52).

(52)   a.   It is raining and it isn't raining.

        b.   If Fred is wrong, then he is wrong.

        c.   Figure A is hexagonal or Figure A is not hexagonal.

        d.   Every square is a square.

Gajewski argues that while the examples in (52) are perfectly acceptable, a formally identifiable subset of the trivial sentences are logically trivial, hence ungrammatical. Gajewski (2009: exx. 41, 42) defines L(ogical)-triviality as in (53), and relates it to ungrammaticality as in (54).

(53)   A sentence S is L-trivial iff S's logical skeleton receives the truth-value 1 (or 0) in all

interpretations.

(54)   A sentence is ungrammatical if its Logical Form contains a L-trivial constituent sentence.

The definition of L-triviality makes reference to a sentence's logical skeleton. The logical skeleton

is the LF configuration of a sentence's logical items, where occurrences of non-logical constants

are treated as independent. For example, (52a) has the logical skeleton in (55): while the logical

items are retained, the non-logical constant *raining* in the first conjunct is replaced by the variable

P, and the non-logical constant *raining* in the second conjunct is replaced by the independent

variable Q.

(55)   [[it is P -ing] and [it is not Q -ing]]

The configuration in (55) is the logical skeleton for (52a), but also for sentences like *It is raining*

and it isn't snowing, which are perfectly contingent. The skeleton in (55) can therefore receive

different truth values in different interpretations, and so is not L-trivial. In sum, (52a) is

grammatical because though it is trivial, it is not logically trivial.

Observe now in (56) that it is ungrammatical to apply ellipsis to (52a), repeated here, as in (b).

(56)   a.   It is raining and it isn't raining.

        b.   * It is <u>raining</u> and it isn't <<u>raining</u>>.

Parallel to the tautology in (51), ellipsis is ungrammatical with the contradiction in (60). We can account for these contrasts between the fully-spoken (a) examples and the elliptical (b) examples in terms of L-triviality if we suppose that non-logical constants are treated as dependent under ellipsis. This tracks the intuition that ellipsis is subject to an identity relation.[16] If the ellipsis and its antecedent must be associated with the same variable, (56b) will be assigned the logical skeleton in (57).

(57) * [it is P-ing and it is not P-ing]

The logical skeleton in (57) is a contradiction – it receives the truth value 0 in all interpretations. By the definitions in (53, 54), (56b) is therefore L-trivial, hence ungrammatical.

Consider now (27b), repeated here as (58a), to which Gajewski (2009: ex. 31a) assigns the logical skeleton in (58b).

(58) a. If Fred is wrong, then he is wrong.

 b. [if a is P, then b is Q]

Since (58a) is presented as a tautology, Gajewski must intend for *Fred* and *he* to be coreferential, as indicated in (59a). In (58b), Gajewski replaces *Fred* and *he* with different variables. However, it seems that coreferential terms should be replaced with the same variable, as in (59b). This is

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[16] Ideally, this dependence will follow from the mechanics of ellipsis. In lieu of a worked out implementation, I appeal to the theoretical intuition that identity is involved.

because applying ellipsis to (59a), as in (60a), is ungrammatical. If (60a) was assigned a logical skeleton with different variables for *Fred* and *he*, we would incorrectly predict ellipsis to be grammatical, since the logical skeleton would be contingent. Replacing coreferential terms with the same variable is harmless for (59), where the independence of the predicate variables maintains contingency in the logical skeleton.

(59) a. If $Fred_1$ is wrong, then he_1 is wrong.

      b. [if a is P, then a is Q]

(60) a. * If $Fred_1$ is <u>wrong</u>, then he_1 is <<u>wrong</u>>.

      b. * [if a is P, then a is P]

Note further that there is no general ban on ellipsis in conditionals with coreferential subjects, like (60a). A non-L-trivial antecedent is made available by (61a), permitting ellipsis in (61b).

(61) a. i.   Is $Fred_1$ <u>a fool</u>?

          ii. [is a P]

      b. i.   If $Fred_1$ is wrong, then he_1 is <<u>a fool</u>>.

          ii. [if a is Q, then a is P]

In fact, even (60a) becomes grammatical when the ellipsis has an antecedent outside the tautologous sentence, as in (62): the predicate variables in the logical skeleton for the conditional are distinct, so L-triviality no longer arises.

26

(62) a. i. Is Fred$_1$ <u>wrong</u>?

ii. [is a P]

b. i. If Fred$_1$ is wrong, then he$_1$ is <u>\<wrong\></u>.

ii. [if a is Q, then a is P]

Returning to pronominal reference, when *Fred* and *he* do not corefer, (58) is not a tautology, as shown in (63). Ellipsis applied to (63) is then grammatical: since *Fred* and *he* are replaced by different variables, (64) is not L-trivial.

(63) a. If Fred$_1$ is wrong, then he$_2$ is wrong.

b. [if a is P, then b is Q]

(64) a. If Fred$_1$ is <u>wrong</u>, then he$_2$ is <u>\<wrong\></u>.

b. [if a is P, then b is P]

The contrast between (60) and (64) might be concerning, since it looks like VPE is being regulated by a VP-external factor – namely, the reference of the subject. Recall the licensing condition on ellipsis from (13), which, following Merchant (2001), abstracts away from the reference of VP-internal subjects by existentially quantifying over them.

(13) A VP ε can be elided only if ε has a salient antecedent VP α and, modulo ∃-type shifting over VP-internal subjects,

α entails ε.

Beyond the reference of the subject, VP-external factors like adverbial modification also seem to be regulating the acceptability of ellipsis. Recall the ungrammaticality of ellipsis in (51), repeated here in (65). Now contrast (66), where adding time adverbials renders ellipsis grammatical.

(65)   a.   If he$_1$ comes, he$_1$ comes.

          b.   * If he$_1$ <u>comes</u>, he$_1$ does <<u>come</u>>.[17]

          c.   * [if a P, a P]

(66)   a.   If he$_1$ comes at 10am, he$_1$ comes at 4pm, too.

          b.   If he$_1$ <u>comes</u> at 10am, he$_1$ does <<u>come</u>> at 4pm, too.

          c.   [if a P at T, a P at U, too]

However, our account in terms of L-triviality means that VP-external factors are only apparently regulating the contrasting grammaticality of VPE between (60) and (64) and between (65) and (66). We are free to say that all of these examples pass the licensing condition on ellipsis in (13). Due to the requirement that elided material must have the same variable as its antecedent, the elliptical examples in (60) and (65) are ruled out as L-trivial, quite apart from the licensing condition on ellipsis.

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[17] (65b) remains bad with *too*, parallel to (66b).

There are (at least…) two problems for our L-triviality account, however: one regarding the reach of the empirical generalisation; and a second in applying the account to the participant switching examples from §5.

First, not all trivial sentences are ungrammatical with ellipsis. So far, we have considered contradiction of the form 'A and not A' in (56) and tautology of the form 'If A, then A' in (60). Consider now a tautology with disjunction, as in (67), repeated from (52c) (Gajewski 2009: ex. 27c).[18] In 'A or not A' tautologies like (67), ellipsis is grammatical – even preferred – as in (68). We can make (a) more natural if we pronominalize *Figure A* in the second conjunct (unsurprisingly), and if we add *either* before the first conjunct (why?), as in (b). But following our assumptions from above, (68) should be L-trivial and hence ungrammatical, since its logical skeleton in (c) is tautology.

(67)   Figure A is hexagonal or Figure A is not hexagonal.

(68)   a.   Figure A is hexagonal or Figure A is not <hexagonal>.

         b.   Either Figure A is hexagonal, or it is not <hexagonal>.

         c.   * [a is P or a is not P]

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[18] For completeness, example (i), repeated from (52d) (Gajewski 2009: ex. 27d), is a tautology of the form 'Every A is A', and is ungrammatical with ellipsis in (ii). From its logical skeleton in (iii), (ii) is L-trivial.
         (i)   Every square is a square.
         (ii)   * Every square is <a square>.
         (iii)   * [every P is a P]

Promisingly, Mayr and Romoli (2016: exx. 14, 15, 2) report a similar pattern for redundancy: infelicity arises with the conditional in (69) and the conjunction in (70), but not the disjunction in (71). Contrasted with the non-redundant (b) examples, in the (a) examples *then she is* (N.B. ellipsis of <pregnant>) is redundant.

(69)   a.   #If Mary is pregnant, then she is and it doesn't show.

        b.   If Mary is pregnant, it doesn't show.

(70)   a.   #Mary is pregnant, and she is and it doesn't show.

        b.   Mary is pregnant, and it doesn't show.

(71)   a.   Either Mary isn't pregnant, or she is and it doesn't show.

        b.   Either Mary isn't pregnant, or it doesn't show.

Mayr and Romoli's (2016) account involves exhaustification, with the result that the consequent of a conditional is interpreted relative to the context as modified by the *if*-clause, and the second conjunct of a conjunction relative to the context as modified by the first conjunct; whereas the second disjunct of a disjunction is interpreted relative to the global context, unmodified by the first disjunct.

A second problem arises when we try to apply the L-triviality account to participant switching VPE. Recall (40) from §5, which by our assumptions so far has the logical skeleton in (72).

(40)   *John₁ <u>danced with Mary₂</u>, but she₂ didn't <dance with him₁>.

(72)   [a P-ed with b, even though b didn't P with a]

(72) is contingent: for example, when P = *mess*.[19] Hence (40) is not L-trivial, and is incorrectly predicted to be grammatical.

Along the same lines, (73) would be the logical skeleton for both (37) and (43a).

(37)   John₁ **wanted** to <u>dance with Mary₂</u>, and (in the end) she₂ did <dance with him₁>.

(43a) *John₁ **started** to <u>dance with Mary₂</u>, and she₂ did <dance with him₁>, too.

(73)   [a Q-ed to P with b, and b did P with a]

The logical skeleton in (73) inherits the problem regarding the variable P from (72). But in addition, there is a problem with the variable Q. Different properties of Q lead to different outcomes in grammaticality: if Q is a partial control predicate, as in (37), the sentence is grammatical; whereas if Q is an aspectual predicate, as in (43a), the sentence is ungrammatical.

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[19] The logical skeleton in (72) is contingent even granting that *with* is a logical item that is not replaced. If *with* is considered part of the predicate *dance with*, a non-logical item, then the logical skeleton for (40) would be (i). Here the contingency problem worsens, since the range of P is far larger than the predicates that take a *with*-PP; for example, when P = *criticise*.
       (i)   [a P-ed b, even though b didn't P a]

As it stands, non-logical items are replaced by variables in forming a logical skeleton, erasing their lexical properties. This leads to an incorrect prediction for (40), and the inability to capture the contrast between (37) and (43a). To fix this, we need to make variable replacement of non-logical lexical items sensitive to lexical properties, ranging over equivalence classes of predicates rather than all predicates. We need to restrict the range of P to symmetrical predicates; and we need to restrict the range of Q to partial control verbs in the logical skeleton for (37), and aspectual verbs in the logical skeleton for (43a).

Abrusan (2014) encounters a parallel problem in her account of presuppositional islands. She argues that a manner question with a factive verb, for example, as in (74), presupposes a contradiction. By assumption, the domain of manners always contains contraries: two things that cannot be simultaneously true, though they may be simultaneously false; e.g. {well, badly}. Since questions inherit the presuppositions of all their potential answers, questions like (74) presuppose a set containing at least two contradictory propositions; e.g. {you believe that John behaved well, you believe that John behaved badly, …}. This contradiction results in presupposition failure, and a judgement of ungrammaticality.

(74)   *How do you regret that John behaved?

Abrusan (2014: 220) provides the logical skeleton for (74) in (75). There is no L-triviality here, since the variable replacing *regret* in (75), V2, ranges over all verbs; yet the presupposition set will only contain a contradiction if V2 is factive.

(75) a. LS of the question: $\{NP1\ V2\ NP3\ V4\ \alpha \mid \alpha\ \varepsilon\ Dwh\}$

  b. LS of the presupposition of the question: (NP3 is V4 $\alpha1$) and (NP3 is V4 $\alpha2$) and

  (NP3 is V4 $\alpha3$), etc. …

Abrusan's (2014) response is to abandon L-triviality for a context-sensitive approach to triviality. Following Chierchia & McConnell-Ginet (2000) and Kamp & Partee (1995), once triviality is noticed, lexical predicates are reinterpreted – as indicated by subscripting in (76) – to give the sentence a contingent flavour.   Presuppositions are backgrounded and not available to reinterpretation, so there is no way to repair the fact the presupposition set for (74) contains a contradiction; i.e. *{you believe$_1$ that John behaved well, you believe$_2$ that John behaved badly, …}.

(76) This table is red$_1$ and not red$_2$.

We could follow Abrusan (2014) in retreating to a context-sensitive approach to triviality. Just as we required elided material to be assigned the same variable as its antecedent in the logical skeleton, we could require the ellipsis and antecedent to be identical in contextual subscripting. In other words, elided material is not available to reinterpretation. (56) would be accounted for in these terms as in (77).

(77) a. It is raining$_1$ and it isn't raining$_2$.

  b. * It is <u>raining$_1$</u> and it isn't <<u>raining$_1$</u>>.

33

7.   Syntactic structure in the ellipsis site

Returning to participant switching VPE, this section argues that there is syntactic structure in the ellipsis site, and that it takes the form in (7). Recall the argument from footnote 2 against the structure in (i) with a partial control PRO. In (i) – suggested to me by Seth Cable (p.c.) – PRO is partially controlled by *she₂*, with John's index added to satisfy the plurality seeking predicate *meet*.

(7)   John₁ wanted to <u>meet (with) Mary₂</u>, but she₂ didn't want to <<u>meet (with) him₁</u>>.

(i)   John₁ wanted to <u>meet (with) Mary₂</u>, but she₂ didn't want to <<u>PRO₁₊₂ meet</u>>.

It might be claimed that (i) is more parsimonious, since a fuller representation of (7) would already include an obligatory control PRO, as in (ii).

(ii)   John₁ wanted to <u>meet (with) Mary₂</u>, but she₂ didn't want to <<u>PRO₂ meet (with) him₁</u>>.

However, participant switching VPE is not restricted to control contexts. In cases like (iii), where the elided VP is not introduced by a control verb, there cannot be a PRO; the only structural option is a *with*-phrase.

(iii)   John₁ wanted to <u>meet (with) Mary₂</u>, but (in the end) she₂ didn't <<u>(*PRO) meet (with) him₁</u>>

Since the PRO structure is only possible with control verbs, while the *with*-phrase structure is possible in all cases of participant and transitivity switching VPE, I assume the *with*-phrase structure throughout.

Further – albeit suggestive – evidence for the *with*-phrase structure comes from A'-movement. Assuming that A'-movement requires a structurally represented lower position – a trace, or copy – we expect this requirement to continue to hold in ellipsis sites, as in (78). Overt pro-forms like *do so*, on the other hand, do not support A'-movement, as in (70) (~~strikethrough~~ = lower copy of A'-movement). To the extent that we expect overt and covert pro-forms to behave the same way with respect to A'-movement, the contrast between (78) and (79) argues in favour of syntactic structure in the ellipsis site (Johnson 2001), as opposed to just a silent pro-form (Hardt 1993).

(78)   I know which car John <u>bought</u> ~~which car~~, and which car Mary did <<u>buy</u> ~~which car~~>.

(79)   *I know which car John bought which car, and which car Mary did so.

Applied to the participant switching case in (7), topicalizing the *with*-phrase object by A'-movement yields (80). Parallel to the contrast between (78) and (79), adding a pro-form to (80), as in (81), is ungrammatical.

(80)   Mary, John wanted to <u>dance with</u> ~~Mary~~; but John, Mary didn't <<u>want to dance with</u> ~~John~~>.

(81)   *Mary, John wanted to dance with ~~Mary~~; but John, Mary didn't do so.

The argument for structurally represented A'-movement in such cases is strengthened by its sensitivity to islands outside the ellipsis site (Haik 1987). Adding a wh-island to (78) results in ungrammaticality, as in (82). The ungrammaticality of (83) follows likewise if (80) is derived by A'-movement of *John* out of the ellipsis site.

(82) *I know which car John <u>bought</u> <s><u>which car</u></s>, and which car Sarah asked

why Mary did <<u>buy</u> <s><u>which car</u></s>>.

(83) *Mary, John wanted to <u>dance with</u> <s><u>Mary</u></s>; but John, Sarah asked

why Mary didn't want to <<u>dance with</u> <s><u>John</u></s>>.

The possibility for island-sensitive A'-movement out of the ellipsis site argues that it contains syntactic structure. Moreover, the extractability of the *with*-phrase object in (2), argues in favour of the structural presence of the *with*-phrase in (7) over the partially controlled PRO in (i). Overall, there is structure in the ellipsis site in participant switching VPE, of the form indicated in (7).

8.   Against discourse coherence

Kehler (2000) argues that the acceptability of ellipsis mismatches pattern according to discourse coherence relations. Cause-Effect relations are sensitive to semantic constraints; hence mismatches in voice, nominalised/clausal structure, and vehicle change are all acceptable. Resemblance relations, by contrast, require syntactic parallelism between the antecedent and elided VPs; hence mismatches in voice, nominalised/clausal structure, and vehicle change are all unacceptable.

I have argued that syntactic identity does not hold in participant switching VPE, which is instead licensed by entailment. Given the role of a semantic constraint, and the absence of syntactic parallelism, Kehler's discourse coherence account predicts that participant switching VPE should be acceptable with Cause-Effect relations, but not Resemblance relations. Participant switching VPE is indeed acceptable in a Cause-Effect relation, such as Result in (84); but our foundational example (4) shows that participant switching VPE is also acceptable in a Resemblance relation, here Kehler's Contrast type (i).

(84)   John$_1$ wanted to <u>dance with Mary Contrary$_2$</u>, and so she$_2$ didn't want to <<u>dance with him$_1$</u>>.

(4)   John$_1$ wanted to <u>dance with Mary$_2$</u>, but she$_2$ didn't want to <<u>dance with him$_1$</u>>.

In addition, Kehler claims that mismatches between nominalised and clausal structure are acceptable in Cause-Effect relations, but unacceptable in Resemblance relations. However, nominalised/clausal structure mismatches are unacceptable under participant switching VPE regardless of the Result Cause-Effect relation in (85) or the Contrast type (i) Resemblance relation in (86).

(85)   *John$_1$ was too keen in asking for a <u>meeting with Mary$_2$</u>,

       and so she$_2$ didn't want to <<u>meet with him$_1$</u>>.

(86)   *John$_1$ asked for a <u>meeting with Mary$_2$</u>, but she$_2$ didn't want to <<u>meet with him$_1$</u>>.

Overall, Kehler's discourse coherence account is severely challenged by participant switching VPE: it undergenerates with respect to the acceptability of participant switching VPE in Resemblance relations in (4); while overgenerating with respect to nominalised/clausal structure mismatches in (85).

9.   Parallel ambiguity

Participant switching VPE behaves like other types of VPE in requiring ambiguities to be interpreted in the same way in both the antecedent and the ellipsis site (cf. strict/sloppy identity). For example, under participant switching in (87) the scope of conjunction must be (a) phrasal or (b) clausal across both antecedent and elided VPs.[20]

(87)   John$_1$ wanted to <u>meet Mary$_2$ and Bill$_3$</u>, but she$_2$ didn't want to …

    a.   meet AND {Mary$_2$, Bill$_3$}   … <<u>meet John$_1$ and Bill$_3$</u>>.

    b.   AND {meet Mary$_2$, meet Bill$_3$}   … <<u>meet him$_1$</u>>.

Likewise, implicit material must be held constant between the antecedent and elided VPs. Consider the three readings for (88), which can be interpreted (a) intransitively, or (b) symmetrically with (i) an implicit indefinite *with someone* or (ii) an implicit *with Mary* ([square] brackets = implicit material). Such 'covert sprouting' must be consistent across the antecedent

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[20] Under transitivity switching in (i), *and* is not scopally ambiguous: only the phrasal reading is available.
    (i)   <u>John$_1$, Mary$_2$ and Bill$_3$ met</u>, even though she$_2$ didn't want to <<u>meet with them$_{1+3}$</u>>.

and elided VPs, resulting in a *some/any* polarity mismatch in (i), and forcing a participant switch reading in (ii).

(88)   John wanted to dance, but Mary didn't want to.

    a.   John$_1$ wanted to <u>dance</u>, but Mary$_2$ didn't want to <u>＜dance (*[with someone/him$_1$])＞</u>.

    b.   i.   John$_1$ wanted to <u>dance [with someone]</u>, but Mary$_2$ didn't want to

                          <u>＜dance *([with anyone])＞</u>.

        ii.   John$_1$ wanted to <u>dance [with Mary$_2$]</u>, but Mary$_2$ didn't want to

                          <u>＜dance *([with him$_1$/John$_1$])＞</u>.

10.   Conclusion

This paper has added participant switching VPE and transitivity switching VPE as cases of mismatch in ellipsis.[21] Ellipsis is licensed – perhaps cyclically – by unidirectional entailment from the antecedent to the elided VP. Given a suitable minimal event, this entailment holds with symmetrical predicates despite participant and transitivity mismatches. Intensionality is required to circumvent redundancy or contradiction, which is incompatible with ellipsis. L-triviality

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[21] Examples of Rooth's (1992) implicative bridging, as in (xii), also feature participant switching (*italics* = prosodic redundancy marking).

      (xii)   She$_1$ called him$_2$ a Republican and then [he$_{2,F}$ *insulted* her$_{1,F}$]

Prosodic redundancy marking in the second conjunct is licensed by entailment, based on the presupposed axiom 'if x calls y a Republican, then x insults y'. From this axiom, we derive insult(x, y), which is the contrasting proposition for focus interpretation in the second conjunct, insult(y, x). While implicative bridging is not usually sufficient to license ellipsis, as in (xiii), it does seem to be when the presupposed axiom is symmetrical, e.g. 'if x hits y, then y hits x' for (xiv) (cf. Parker 2011 on the role of focus).

      (xiii) *She$_1$ called him$_2$ a Republican and then he$_{2,F}$ did <u>＜insult her$_{1,F}$＞</u>.

      (xiv) % John$_1$ <u>hit Mary$_2$</u>, and so she$_2$ did <u>＜hit him$_1$＞</u> right back.

Given a retaliatory context, participant switching VPE is licensed in (xiv) for speakers who are able to conceive of a retaliatory hitting as a minimal event. As with *each other* in §3.6, different tolerances in this regard give rise to inter-speaker variation.

(Gajewski 2009) sheds some light on this incompatibility. There is syntactic structure in the ellipsis site, and ambiguities are interpreted consistently across antecedent and ellipsis, but discourse coherence relations do not affect participant switching VPE.

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