1 Introduction: ellipsis and identity

- Ellipsis might seem to radically undermine form-meaning mapping: meaning without form.
- Identity conditions enable recovery of elided content, drawing on an antecedent.
- Two kinds of elliptical sentences that bear on the issue of identity from opposite directions:
- Participant switching verb phrase ellipsis (VPE) (Stockwell, 2017)
  - ellipsis licensed despite apparent non-identity (unpronounced elided structure)
    (1) John\(_1\) wanted to dance with Mary\(_2\), but she\(_2\) didn’t want to dance with him\(_1\).
- Ellipsis in tautologous conditionals (Stockwell, 2018) and free relatives
  - ellipsis not licensed despite apparent identity
    (2) * If John\(_j\) is wrong, then he\(_j\) is wrong.
    (3) * John\(_j\) eats what he\(_j\) does eat.
- Semantic identity condition (Rooth, 1992b), plus ‘proper’ contrast (Rooth, 1992a; Griffiths, 2019), for which intensionality counts:
  (4) * John\(_1\) danced with Mary\(_2\), but she\(_2\) didn’t dance with him\(_1\).
  (5) If John\(_j\) believes he\(_j\) is wrong, then he\(_j\) is wrong.
  (6) Mary believes that John\(_j\) eats what he\(_j\) does eat.
• Outline:

2. The contrast condition and triviality
3. Ellipsis in tautologous free relatives
4. Participant switching VPE
5. Contrasting intensionality
6. Negation
7. So-called MaxElide effects
8. Utterances of agreement
9. Conclusion

2 The contrast condition and triviality

• Focus membership, a.k.a semantic parallelism, as the identity condition on ellipsis (following the letter of Rooth 1992b):

(7) For $\varepsilon$ to be elided, $\varepsilon$ must be inside a phrase $E$ that has an antecedent $A$ such that:

$[A] \in F(E)$ — the focus membership condition

• Doubly correct prediction for simple cases of VPE like (8) (Rooth 1992b: exx. 22, 23; 32):

  – main clauses as parallelism domain (a), focus membership satisfied substantively: John leaving is a member of the alternatives to BILL leaving
  – VPs as parallelism domain (b), focus membership satisfied vacuously: $leave'$ is the only member of the degenerate singleton \{\textit{leave}'\}

(8) John left, and BILL$ _F$ did leave, too. $\varepsilon = \text{left}$

  a. $E = \text{BILL}_F$ left $[E] = \text{leave}'(b)$ $F(E) = \{\text{leave}'(x) \mid x \in D_e\}$
     $A = \text{John}$ left $[A] = \text{leave}'(j)$ $[A] \in F(E)$
  b. $E = \text{left}$ $[E] = \text{leave}'$ $F(E) = \{\text{leave}'\}$
     $A = \text{left}$ $[A] = \text{leave}'$ $[A] \in F(E)$

• Focus membership alone makes incorrect predictions with respect to (9):

  – we can say trivial things, like the tautologous conditional in (a)
  – but not the same sentence with ellipsis in (b)

(9) a. If John$ _j$ is wrong, then he$ _j$ is wrong.
   b. * If John$ _j$ is wrong, then he$ _j$ is $\text{wrong}$. $= (2)$

F-marking on *is* introduces polar focus alternatives, satisfying focus membership:

\[(10) \quad \text{If John}_1 \text{ is wrong, then he}_1 \text{ is}_F \text{ wrong.}\quad \varepsilon = \text{wrong} \\
E = \text{he}_1 \text{ is}_F \text{ wrong} \\
A = \text{John}_1 \text{ is wrong} \\
\left[ E \right] = \text{wrong}'(j) \\
\left[ A \right] = \text{wrong}'(j) \\
F(E) = \{ \text{wrong}'(j), \text{not-wrong}'(j) \} \\
\left[ A \right] \in F(E)\]

More stringently, ‘proper’ contrast between A and E (following the spirit of Rooth 1992b)\(^2\)

\[(11) \quad \text{For } \varepsilon \text{ to be elided, } \varepsilon \text{ must be inside a phrase } E \text{ that has an antecedent } A \text{ such that:} \\
\quad \text{(i) } \left[ A \right] \in F(E) — \text{the focus membership condition; and} \\
\quad \text{(ii) } \left[ A \right] \neq \left[ E \right] — \text{the contrast condition.}\]

Ellipsis in tautologous conditionals (9b) as contrast failure (Stockwell, 2018):

– too identical — too much of a good thing

\[(12) \quad \ast \text{ If John}_1 \text{ is wrong, then he}_1 \text{ is}_F \text{ wrong.} \\
\left[ A \right] \in F(E), \text{ but } \left[ A \right] = \left[ E \right]\]

The contrast condition rules out the degenerate singleton (b) option for (8); must be some F-marking in E in order for focus membership to be satisfied substantively under option (a).

What counts as ‘not equal’ for the contrast condition?

– Alternative individuals:

\[(13) \quad \text{If John is wrong, then BILL}_F \text{ is } \text{wrong.}\quad \text{cf. (12)} \\
\text{– Worlds count too:}\]

\[(14) \quad \text{If John}_j \text{ believes he}_j \text{ is wrong, then he}_j \text{ is } \text{wrong.}\quad = (5)\]

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\(^2\)Following Rooth 1992a: 90, 93 for focus. See also Griffiths (2019) on so-called MaxElide effects in section 7.
Ellipsis in tautologous free relatives

- Ellipsis contrasts in tautologous free relatives (cf. Horn, 1981, 326):

  (15)  
  a. John$_j$ eats what he$_j$ eats.
  b. * John$_j$ eats what he$_j$ does eat.  = (3)
  c. Mary believes that John$_j$ eats what he$_j$ eats.
  d. Mary believes that John$_j$ eats what he$_j$ does eat.  = (6)

- Ellipsis is ruled out in (15b) as a contrast failure:

  (16)  
  \[ DP\{what \ 4 \  he$_1$ \ \text{does eat}_4 \} \ 3 \ John$_1$ \ \text{eats}_3 \ \\
  E = 4 \ he$_1$ \ \text{does eat}_4 \ \\
  A = 3 \ John$_1$ \ \text{eats}_3 \ \\
  [A] = [E] = \lambda x.\text{eats}'(x)(j) \]

- However, we incorrectly predict (15d) to be ungrammatical for the same reason.

- The contrast condition is sensitive to intensionality (17):

  - syntactic structure (a), LF (b), antecedent A (c)
  - \textit{de dicto} reading (d) (Mary believes a tautology) not available — no contrast
  - \textit{de re} reading (e) (Mary is correct about John’s eating habits) available — contrast between what John eats in Mary’s belief worlds and what he eats in the actual world
  - DOES realises focus on the world pronoun, satisfying focus membership (f)

  (17)  
  a. Mary believes that John eats what$_k$ he DOES$_F$ eat$_F$.
  b. Mary believes 7 that \[ \text{what}_4 \ \text{he}_1 \ \text{does eat}_4 \ \text{w}_0F/^*/\text{w}_7F \] \ 3 \ John$_1$ \ \text{eats}_3 \ \text{w}_7 \ \\
  c. A = 3 \ [\text{John}_1 \ \text{eats}_3 \ \text{w}_7] \ \\
  d. E_{de \ dicto} = 4 \ [\text{he}_1 \ \text{eats}_4 \ \text{w}_7F] \ \\
  \[ [E_{de \ dicto}] = \lambda x.\text{eats}'(x)(j)(w_7) \] \\
  e. E_{de \ re} = 4 \ [\text{he}_1 \ \text{eats}_4] \ \text{w}_0F \ \\
  \[ [E_{de \ re}] = \lambda x.\text{eats}'(x)(j)(@) \] \\
  f. F(E_{de \ re}) = \{\lambda x.\text{eats}'(x)(j)(w) \mid w \in W\} \ \\
  \[ [A] \notin F(E_{de \ re}) \]

- Contrast is satisfied when the antecedent and the clause containing are ellipsis are interpreted relative to different (sets of) worlds.
4 Participant switching VPE

- Participant switching verb phrase ellipsis: licensed despite apparent non-identity.
  
  (18) John\textsubscript{1} wanted to dance with Mary\textsubscript{2}, but she\textsubscript{2} didn’t want to dance with him\textsubscript{1}. = (1)

- Syntactic non-identity: the antecedent and ellipsis take very different forms, since the subject and object switch between them.\textsuperscript{3}
  
  (19) a. John\textsubscript{1} hoped to meet (with) Mary\textsubscript{2}, but she\textsubscript{2} hoped not to meet (with) him\textsubscript{1}.
  b. John\textsubscript{1} yearned to marry Mary\textsubscript{2}, and she\textsubscript{2} did yearn to marry him\textsubscript{1}, too.
  c. John\textsubscript{1} needed to be introduced to Mary\textsubscript{2}, and (in the end) she\textsubscript{2} was introduced to him\textsubscript{1}.
  d. John\textsubscript{1} planned to build a house with Mary\textsubscript{2}, but she\textsubscript{2} didn’t (plan to) build a house with him\textsubscript{1}.

- Symmetry (20) is crucial; cf. non-symmetrical criticise (21):
  
  (20) Symmetry: For all x, y: R(x,y) ↔ R(y,x)

  (21) * John\textsubscript{1} wanted to criticise Mary\textsubscript{2}, but she\textsubscript{2} didn’t (want to) criticise him\textsubscript{1}.

- The symmetry of dance-with supports focus membership, even without any F-marking:
  
  (22) A = PRO\textsubscript{j} dance with Mary
  E = PRO\textsubscript{m} dance with John
  F(E) = \{dance-with'(m, j)\}
  [A] = dance-with'(j, m) = dance-with'(m, j)
  [E] = dance-with'(m, j)
  [A] ∈ F(E)

- But in the same breath, symmetry causes contrast failure:
  
  (23) [A] = dance-with'(j, m) = dance-with'(m, j) = [E]

- Also crucial is intensionality:
  
  (24) a. John\textsubscript{1} wanted to dance with Mary\textsubscript{2}, but she\textsubscript{2} didn’t want to dance with him\textsubscript{1}.
  b. John\textsubscript{1} wanted to dance with Mary\textsubscript{2}, and (in the end) she\textsubscript{2} did dance with him\textsubscript{1}.
  c. John\textsubscript{1} danced with Mary\textsubscript{2}, even though she\textsubscript{2} didn’t want to dance with him\textsubscript{1}.

\textsuperscript{3}Cf. Vehicle Change (Fiengo and May, 1994) — only alters the binding theoretic status of DPs, not their reference.
d. * John₁ danced with Mary₂, and she₂ did not dance with him₁.
e. * John₁ danced with Mary₂, but she₂ didn’t dance with him₁.

• Previously (Stockwell, 2017), I attributed the ungrammaticality of ellipsis in (24d,e) directly to the triviality of redundancy and contradiction.

• But we can say trivial things (25) — this is a fact about ellipsis:

  (25) a. John₁ danced with Mary₂, and she₂ ⟨did⟩ dance ⟨d⟩ with him₁.
  b. John₁ danced with Mary₂, but she₂ didn’t dance with him₁.

• Degradation in (24e) even more pronounced across speakers in (27) vs. (26):

  (26) A: John₁ left. B: But he₁ didn’t leave.
  (27) A: John₁ danced with Mary₂. B: * But she₂ didn’t dance with him₁.

• Contrasting intensionality (24a-c): A and E are interpreted with relative to different (sets of) worlds — John’s desires vs. Mary’s desires vs. the actual world.

5 Contrast ing intensionality

• Contrast ing intensionality is responsible for the differing status of ellipsis across tautologous conditionals (a), tautologous free relatives (b), and participant switching (c).

• Intensionality contrasts among belief/desire worlds and the actual world; above, believe, want; here modal should:

  (28) a. If Johnₐ should be hungry, heₐ is hungry.
  b. Johnₐ eats what heₐ should eat.
  c. John₁ should dance with Mary₂, but she₂ won’t dance with him₁.

• Compare non-intensional embedding under aspectual verbs like start, which are extensional (Pearson, 2016).

  (29) a. * If Johnₐ starts to leave, heₐ does (start to) leave.
  b. * Johnₐ is starting to eat what heₐ is eating.
  c. * John₁ started to dance with Mary₂, but she₂ didn’t (start to) dance with him₁.
• **Contrasting** intensionality, vs. intensionality with respect to the same attitude holder:

(30)  
\begin{align*}
  a. & \text{Mary believes John}_j \text{ eats what Sally believes } \text{he}_j \text{ does } \textbf{eat}. \\
  b. & \text{*Mary}_m \text{ believes that John}_j \text{ eats what she}_m \text{ believes } \text{he}_j \text{ does } \textbf{eat}.
\end{align*}

(31)  
\begin{align*}
  a. & \text{I believe/know that John}_j \text{ eats what he}_j \text{ eats.} \\
  b. & \text{??I believe/know that John}_j \text{ eats what he}_j \text{ does } \textbf{eat}.
\end{align*}

6 Negation

• Negation doesn’t count for contrast in ellipsis licensing calculations for participant switching VPE (32), but does elsewhere (33):

(32)  
\text{*John}_1 \text{ danced with Mary}_2 \text{, but she}_2 \text{ didn’t dance with him}_1. = (4, 24e)

(33)  
\text{John}_1 \text{ is wrong and he}_1 \text{ isn’t wrong.}

• Previously, (Stockwell, 2018), I claimed based on the acceptability of (33) that negation counts for the contrast condition on ellipsis:

  – focus on *not* introduces polar focus alternatives for E, while the opposition of a positive A and a negative E satisfies contrast

(34)  
\begin{align*}
  E &= \text{he}_1 \text{ isn’t}_F \text{ wrong} \\
  [E] &= \text{not-wrong}'(j) \\
  F(E) &= \{\text{wrong}'(j), \text{not-wrong}'(j)\} \\
  A &= \text{John}_1 \text{ is wrong} \\
  [A] &= \text{wrong}'(j) \\
  [A] \in F(E), [A] \neq [E]
\end{align*}

• Why then doesn’t negation count for contrast in participant switching VPE?

• Perhaps because you can’t contradict your own working in ellipsis licensing:\footnote{Alternatively, *not* could be excluded from A and E by an economy condition that prefers smaller parallelism domains. Recall from (22) that the symmetry of *dance-with* supports focus membership at the VP level even without any F-marking. But why should you be prevented from looking to a bigger A and E to fix things?}

  – Crucial contribution of symmetry to ellipsis licensing in (22):

  \text{dance-with}'(j, m) = \text{dance-with}'(m, j)

  – Assertion: \text{dance-with}'(j, m) \neq \text{dance-with}'(m, j)
7 So-called MaxElide effects

- So-called (Griffiths, 2019) MaxElide effects (Merchant, 2008) (35):
  - Merchant (2008): (b) trumps (c), more ellipsis
  - Griffiths (2019): (c) a contrast failure, as in (d)

(35) a. John will kiss someone, but I don’t know who he will kiss \( t \). \[ \text{No ellipsis} \]
b. John will kiss someone, but I don’t know who he \( \underline{\text{will kiss}} \) \( t \). \[ \text{Sluicing} \]
c. * John will kiss someone, but I don’t know who he will \( \underline{\text{kiss}} \) \( t \). \[ \text{VPE} \]
d. \([A] = [E] = \lambda x. \text{John will kiss } x\]

- Look to expand on Griffiths (2019) empirically in view of contrast being sensitive to intensionality.

- Canonical examples of sluicing give little opportunity for intensionality contrasts to arise: statement, \( \text{but I don’t know, WH-word, ellipsis} \).

- Compare the improvement of VPE in (36) — opposition between different people’s epistemic states, no negation:

(36) a. ? (I think that) John \( j \) will kiss someone, and Mary knows who he \( j \) will kiss \( t \).

b. ? SUE knows who John \( j \) kissed \( t \), and MARY knows who he \( j \) did kiss \( t \), too.

- MaxElide (Merchant, 2008) or consideration of just the embedded clause for parallelism (Griffiths, 2019) would incorrectly(?) rule out VPE in (36).

8 Utterances of agreement

- Problem: in utterances of agreement, \([A] = [E]\):

(37) A: John \( j \) is wrong. B: Yes, he \( j \) is wrong.

- Intensionality? A and E are uttered with respect to the contrasting epistemic states of each speaker — though this didn’t work in (27).

- The problem may recede in light of a more complete statement of parallelism.
Subset condition clause (II) when \([A]\) is a set, e.g. questions (Hamblin, 1973):

\[(38) \text{For } \varepsilon \text{ to be elided, } \varepsilon \text{ must be inside a phrase } E \text{ that has an antecedent } A \text{ such that either:}
\]

(I) (i) \([A] \in F(E)\) and
(ii) \([A] \neq [E]\); or

(II) \([A] \subseteq F(E)\) — the subset condition

Applied to (37):

– speaker A proffers alternatives, establishing a Question-Under-Discussion (QUD) (Roberts, 1996) as to whether John is wrong
– take this QUD as A, circumvent the contrast condition in using clause (II) of (38)

\[(39) E = \text{he}_1 \text{ is}_F \text{ wrong} \quad A = \text{Is John}_1 \text{ wrong?}
\]

\([E] = \text{wrong}'(j)\) \quad \([A] = \{\text{wrong}'(j), \text{not-wrong}'(j)\}\)

\(F(E) = \{\text{wrong}'(j), \text{not-wrong}'(j)\}\) \quad \([A] \subseteq F(E)\)

As explicitly for (40):

\[(40) A: \text{ Is John}_j \text{ wrong?} \quad B: \text{ If John}_j \text{ is wrong, then he}_j \text{ is wrong.}
\]

But we would need principled constraints, motivated independently of ellipsis licensing, on when a declarative can and cannot proffer a QUD.

9 Conclusion

Coming at identity from opposite directions:

– participant switching — semantic identity
– tautologous conditionals and free relatives — proper contrast vs. too much identity

The contrast condition on ellipsis is sensitive to intensionality: where A and E are otherwise the same, it suffices for contrast that they be interpreted relative to different (sets of) worlds.

\(^5\text{Motivated by Rooth (1992a) for question-answer congruence.}\)
References


