1 Introduction

• Polarity particles are found in a wide range of languages and stand at the intersection of several productive strands of linguistic research including...
  – The semantics of polar questions.
  – The syntax and semantics of negation.
  – The syntax and semantics of ellipsis.

• Yet prior to the last few years they have received surprisingly little attention in the generative literature. (Notable exceptions: Pope 1972; Laka 1999)

• In this talk, we focus on how polarity particles intersect with the syntax and semantics of ellipsis, arguing that isolated polarity particles are the remnant of a kind of TP ellipsis licensed by $\Sigma$ (closely related to stripping).

• We present evidence for an ellipsis account, based on data from English (Kramer and Rawlins 2009) and Dutch.

• We then explore how an ellipsis account functions in languages that have a separate particle for responding positively to negative questions (e.g. “doch” in German), and how ellipsis interacts with this kind of ‘reversing’ response in general.

• Finally, we lay out and justify the assumptions about the syntax of polarity particles that an ellipsis account requires, closing out the discussion by showing that French confirms one of its predictions.

§1: Evidence for ellipsis: English and Dutch
§2: Reversal responses
§4: The Syntax of Sigma
§5: Conclusion

2 Evidence for Ellipsis: English and Dutch

2.1 Two puzzles and a solution

Puzzle 1: What is the structure of a polarity particle appearing in isolation as an answer to a polar question (iB), in contrast to one appearing with a full clause (iB′)?

(i) A: Is Alfonso coming to the party?
  B: Yes / No.
  B′: Yes, he is / No, he isn’t.

• Ellipsis? The isolated polarity particle is the remnant on some kind of ellipsis (Laka 1990; Holmberg 2003; cf. Morgan 1973; Merchant 2004 etc. on “fragment” answers to constituent questions.)
  – (Treat English polarity particles as adverbs (Haddleton and Pullum 2002; see §4.)

(ii) A: Is Alfonso not coming to the party?
  B: Yes. (= He is not coming to the party.)
  B′: No. (= He is coming to the party.)

Puzzle 2: The meanings of isolated polarity particles neutralize in the case of an inner negative polar question (Kramer and Rawlins 2009).4

(iii) A: Is Alfonso coming to the party?
  B: Yes. (= He is coming to the party.)
  B′: No. (= He is not coming to the party.)


(iv) A: Is Alfonso not coming to the party?
  B: Yes. (= He is not coming to the party.)
  B′: No. (= He is coming to the party.)


(v) A: Is Alfonso not coming to the party?
  B: Yes. (= He is not coming to the party.)
  B′: No. (= He is coming to the party.)

• Neutralization is unexpected. Either...
  – The meaning of “yes” and “no” should stay the same, since positive and negative polar questions have the same meanings on most accounts (Hamblin 1973; Karttunen 1977; Groenendijk and Stokhof 1984, etc.)5
  – The meaning should reverse, because of the presence of negation.

One solution for two puzzles: The ellipsis proposal explains negative neutralization.

The gist
• Ellipsis is licensed under semantic identity with an antecedent, using Merchant’s 2001 implementation (e-givenness).

4 We will set aside outer negative polar questions (Ladd 1981; Romero and Han 2004; Romero 2006; Reese 2007 a.o.) for the purpose of this talk, though see Kramer and Rawlins 2009 for an account of their behavior.

5 There is some variation in how acceptable this response is among English speakers. Our impression is that in a formal elicitation context, some speakers are less likely to accept (iB), but the same speakers may produce and/or accept it in conversational contexts. Some speakers also prefer the related positive particle “yeah”, and we hope to address the distribution of “yeah” and its connection to higher-register polarity particles in future work.

Kramer / Rawlins – Polarity particles and ellipsis
(6) An expression E counts as e-given iff E has a salient antecedent A, and modulo 3-type-shifting,
(i) A entails F-clo(E), and
(ii) E entails F-clo(A).

• We assume Merchant’s 2001 [e] feature triggers ellipsis (PF-deletion/radical de-accenting), and in this case the feature is hosted by the head of the polarity projection Σ (see Laka 1990; Ladusaw 1992 a.o. on high Σ; see Merchant 2003, 2006 for related cases of TP ellipsis.)

(7) Negative question, positive answer (neutralization)

A question: If there is ellipsis when polarity particles appear in isolation, then how can (4B′), a negative answer to a positive question, be interpreted as negative? Shouldn’t it necessarily be positive since the antecedent is positive?

• Negative concord as the answer. Consider:

(8) A: Did Alfonso go to the party?
B: No, he didn’t.

– This seems to be an instance of double negation / negative concord in Standard English!

• Proposal: “no”, high Σ, and clausal negation (“not”) participate in a negative concord agreement relationship that is formalized as the sharing of a negative feature across these heads.

– Concord idea following Huddleston and Pullum 2002.
– Cf. Pesetsky and Torrego 2007 on feature sharing.

• The shared negative feature only needs to be interpretable at one syntactic location (cf. Brody’s 1997 Thesis of Radical Interpretability) = no semantically contentful double negation.

• Assume that high Σ has an unvalued interpretable negative feature and “not” has a valued uninterpretable negative feature. Σ probes downwards and enters into a feature sharing relationship with “not” w.r.t. the negative feature.

(9) $\Sigma -$not $\rightarrow$ not $\rightarrow$ $\Sigma -$not

• “No” itself also has an unvalued negative feature, and thus also probes downwards, locates Σ as a matching goal, and joins the feature sharing relationship.

(10) $\Sigma -$not $\rightarrow$ not $\rightarrow$ $\Sigma -$not

• Intended result: the shared, valued negative feature is only interpreted on Σ (with scope over the TP). “Not” in this kind of response (8B) is uninterpretable since it is part of an agreement/concord relationship (aka concord chain).

Back to the point: if there is ellipsis when polarity particles appear in isolation, then how can (4B′) be interpreted as negative? Shouldn’t it necessarily be positive since the antecedent is positive?

(4) A: Is Alfonso coming to the party?
B′: No. (= he is not coming.)

• Since the negation feature on “not” in the ellipsis site is uninterpretable in this case, it is irrelevant for a semantic identity condition on ellipsis (including Merchant’s 2001-e-giveness).

• The distribution of the interpretable instance is somewhat more complicated in the general case (see summary trees if you care.)

What is the function of the particle, if polarity carried on Σ?

• Marks utterance as a response in the sense of Farkas and Bruce 2009.

(11) Constraint on response particles

A response particle is licensed only if would commit the author to the denotation of a sentence radical on the Table or to its complement. (see Farkas and Bruce 2009 (90) for the technical version.)

Summary: An ellipsis account can generate the range of responses above and also solves the neutralization puzzle.

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4One might wonder what forces “not” to host the uninterpretable feature here. Indeed, in most cases, including an overt negative continuation answering a positive question, which was normalized above for clarity, the lower feature is the interpretable one. This is necessary so that the interpretable Neg feature in a question itself is inside TP. This behavior can be derived from the interaction of two ranked constraints: the dominating one is the identity condition, and the outranked one is a constraint requiring interpretable features to be as low as possible. These interact with the constraint imposed by the presence of “no”, that there be an interpretable Neg feature somewhere.
2.2 Neutralization beyond Yes/No

An ellipsis solution makes a strong prediction: negative neutralization will not be limited to polarity particles in response contexts.

- Any clause that contains Σ-licensed TP ellipsis (a sort of stripping; Merchant 2004, 2006) should exhibit negative neutralization.
- NB: must be Σ-licensed TP ellipsis because otherwise there will be no contrast between a "yes"-type response and a "no"-type response to be neutralized.
- Prediction borne out for many instances of this type of ellipsis.

Responding adverbs: adverbs that can mark some degree of certainty about an answer to a question, e.g. "maybe", "probably", "perhaps", "certainly", "definitely", etc.

- "So"/"not" are the realizations of the Σ head that “probably” is adjoined to.
- (As before, only one Neg feature is interpretable.)

 Reduced conditionals: conditionals with reduced protases, often used in response contexts.

- The infelicity of (17b') follows from ellipsis account.
- Negative “why” question incoherent with positive antecedent.

Credence ellipsis: Σ-licensed TP ellipsis following a range of attitude verbs; “think”, “expect”, “suppose”, “assume”, etc.

- These examples are complicated by the fact that there is a preference for expression of embedded negation via Neg-raising. (Horn 1978; Gajewski 2005 a.o.)
- Neutralization still occurs regardless:

<table>
<thead>
<tr>
<th>Positive question, no neutralization</th>
<th>Negative question, neutralization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive question, negative answer:</td>
<td>Negative question, positive answer:</td>
</tr>
</tbody>
</table>
Summary: A non-ellipsis account of “yes”/“no” would crucially miss the generalization that negative neutralization occurs whenever there is Σ-licensed TP ellipsis.

2.3 Further evidence for ellipsis: Agreeing “yes”/“no” in Dutch dialects

As shown earlier, in a non-ellipsis account of “yes” and “no”, there is no syntactic structure in an isolated particle response (besides the particle itself).

\[ (21) \text{AdvP} \quad \text{Adv} \quad \text{yes} \]

An ellipsis account, however, has an entire TP below Σ that is present during the syntax but deleted at PF.

\[ (22) \text{AdvP} \quad \text{Adv} \quad \text{Σ} \quad \text{yes} \]

Therefore, the ellipsis account predicts that the particle should be capable of entering into a syntactic relation with something in the elided TP. (Cf. connectivity effects in sluicing and fragment answers; Merchant 2004).

- Not predicted (without much extra work) in a non-ellipsis account, since no TP present.

These predictions initially seem difficult to test.

- “Yes” and “no” do not agree or inflect for case cross-linguistically.

However, in certain Dutch dialects, answer particles can host a subject clitic (van Craenenbroeck 2004).

\[ (23) \text{Kom Marie morgen?} \quad \text{comes Mary tomorrow} \]

\[ (24) \text{Jui-s zai kom morgen} \quad \text{Yes-she\textsc{clitic} she\textsc{strong} comes tomorrow} \]

The clitic remains on the particle even when there is no following clause.

\[ (25) \]

Regardless of the details of the analysis, it is difficult to see how to generate the subject clitic on the particle in the non-ellipsis account.

- There is no subject to enter into an agreement relation with (or to generate a doubled clitic from)!

Dutch ‘agreeing particles’ are thus further evidence for an ellipsis account of answer particles.

2.4 Summary

An ellipsis account of “yes” and “no” has significant analytical advantages.

- A unified account of bare and adjoined answer particles.
- An explanation of negative neutralization and its independent appearance in ellipsis contexts.
- An explanation of the few connectivity effects that are known to exist in this domain.

3 Reversal: a challenge for ellipsis

There is an additional, non-neutralizing type of response to a polar question. In English this takes the form of a positive response to a negative question:

\[ (26) \text{A: Did Alfonso not go to the party?} \]

\[ (27) \text{B: No, he did.} \]

\[ \text{B: Yes. (= yes he \textsc{did}.)} \]

In many other languages this kind of response is marked with a distinct particle (data below).

- We will refer to this kind of response as a ‘reversal’ (following Pope 1972; Farkas and Bruce 2009).

Pattern 1: In languages that do not have a distinct reverse particle or morpheme, an isolated particle (i.e. a particle with an elided TP) cannot be interpreted as a reversal response.

\[ (28) \text{Russian (yes = "da", no = "net")} \]

We give these rough equivalences as a guide only. It should be clear from the Farkas and Bruce 2009 typology that we would not necessarily expect exact equivalents of the English forms in any given language.
A: A čto, Pasha ne pošel v knižnyi magazin?
   So, did Pasha not go to the book store?
B: Net. (#he did. ✓ he didn’t.)
B¹: Da. (#he did. ✓ he didn’t.)
B²: Net, poˇcemu, pošol! (= No, why, he went!) (with special intonation)

A: Alfonso lo halax la-mesiba?
   Go to the party?
B: Mbalaa, raα went.
   = On the contrary, he did.

In these languages, in contrast to English/Russian/Hebrew, it is always possible to respond with a plain reverse particle.

(29) Hebrew (yes = “lo”, no = “ken”)
A: Alfonso lo halax la-mesiba?
   Did Alfonso not go to the party?
B: Mbalaa, raα went.
   = On the contrary, he did.

(30) German (yes = “ja”, no = “nein”)
A: Kommt Oskar nicht aufs Fest?
   Did Oskar come to the party?
B: Doch. (= he did come.)

(31) French (yes = “oui”, no = “non”)
A: Oscar ne vient pas à la soirée?
   Did Oscar come to the party?
B: Sí, il vient.
   = He did come.

(32) Icelandic (yes = “já”, no = “nei”) (Laka 1990:158)
A: Er hann ekki heima?
   Is he not home?
B: Jú.
   = Yes, he is.

(33) Romanian (yes = “da”, no = “nu”) (Farkas and Bruce 2009 ex. 45)
A: Ana nu a plecat?
   Did Ana not leave?
B: Ba da, (a plecat)
   = You’re wrong, she did.

(34) Hungarian (yes = “igen”, no = “nem”) (Farkas 2009 ex. 38)
A: Mari nem ment el?
   Did Mari not leave?
B: De (igen). (Elment.)
   = Yes, she did leave.

Pattern 2: Many languages use a different particle for reversal in a negative context.\[sup]\textsuperscript{6}\]

(35) Lebanese Arabic (yes = “eh”, no = “la”)\[p. 9 of 21\]
A: Ma raα Alfonso ya l-haflêh?
   Did Alfonso not go to the party?
B: Mbaαα, raα went.
   = On the contrary, he did.

\[\text{The choice of “on the contrary” in translations is not meant to be deep or significant, just convenient.}\]
Puzzle 1: There is a clear correlation between the lack of a special reverse particle and the inability to use a plain particle for a reverse reading (new generalization). How to explain this?

Puzzle 2: A plain reverse particle presents a challenge for an ellipsis account.

- Would expect interpretable negation in ellipsis site because of antecedent & identity condition on ellipsis...
- But response has a positive interpretation, and continuation is always morphologically positive.

Can reversals of either type be handled in an ellipsis account, and if so, how?

- Solution to puzzle 1 (§3.1): reversals in English (and, we hope, other such languages) recruit a general mechanism in the language to convey the appropriate meaning.
- Solution to puzzle 2 (§3.2): reverse particles mark covert double negation.

3.1 English reversals as corrections

Kramer and Rawlins 2009: English reversal marked by intonational contour that must be hosted by “do”.

- Ambiguous “no”: iRev or iNeg.

Problematic in light of cross-linguistic generalization.

- Languages that lack reverse particles use negative particle, always with overt continuation.
- No morphological marking of reversal on Neg. No reverse particle that requires continuation.
- Doesn’t explain apparent generalization about intonational marking.

New proposal: languages that lack reverse particle must recruit other systems to express similar meaning. English an instance.

- B response above is not an answer per se, but a correction (specific kind of denial/correcting assertion).
- Intonational marking follows from general properties of corrections.
- Following Farkas’s 2009 notion of an “echo assertion.” (In fact, we provide a formal connection to echo questions.)
- Use of “no” predicted (though not exactly explained).
- Unification of above ex. with a wide range of data:

  \[(42) A: \text{Did Alfonso not go to the party?} \]
  B: No, JOANNA didn’t go.

  \[(43) A: \text{Alfonso didn’t go to the party.} \]
  B: No, he DID.

For better or worse, focus on English.

Corrections

- Corrections: a species of denials.

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Corrections

- Corrections: a species of denials.

  44 Some core properties of (English) corrections (van Leusen 2004; see also Asher and Gillies 2003; Asher and Lascarides 2003 ch. 8 a.o.)
  a. The context must provide an antecedent.
  b. The correction denies the antecedent (often marked with “no”).
  c. The correction is parallel with the antecedent up to focus (contrastive topic) marking.

- Farkas and Bruce 2009: denials in general marked with “no”.

Implement these properties in the following (novel) way, basically following Artstein’s 2002 account of echo questions:

  45 Constraints on corrections
  a. A correction must be given relative to antecedent/preceding discourse (Schwarzschild 1999).
  b. The ordinary denotation of a correction must be incompatible with its antecedent.

- Givenness: entailment when focused elements are replaced by variables and existentially closed. (I.e. $F{-\text{clo}}(S)$ is entailed.)
  – Cf. focus algorithm in Asher and Gillies 2003; Asher and Lascarides 2003.

Focus on argument:

  \[(46) A: \text{Alfonso didn’t go to the party.} \]
  B: No, JOANNA didn’t go. $\Rightarrow \exists X : X$ didn’t go to the party

Focus on low $\Sigma$:

  \[(47) A: \text{Alfonso went to the party.} \]
  B: No, Alfonso didn’t go. $\Rightarrow \exists O \in D_{\langle\langle \text{st} \rangle\rangle} : O(\text{Alfonso did go to the party})$

  \[(48) A: \text{Alfonso didn’t go to the party.} \]
  B: No, Alfonso did go. $\Rightarrow \exists O \in D_{\langle\langle \text{st} \rangle\rangle} : O(\text{Alfonso did go to the party})$

- (Assume that $O$ is drawn from scale for $\Sigma$...)

Corrections to questions: Well known that corrections can target speaker assumptions (e.g. presuppositions).

- Assume: corrections can target speaker assumptions signaled by question bias. (Alternatively, target top element on Table.)

  \[(49) A: \text{Didn’t Alfonso go to the store?} \]
  B: No, BILL went to the store.

- Büring and Gunlogson 2000; van Rooy and Safarova 2003: polar questions can signal a weak bias in the direction of their polarity.\footnote{This idea makes the interesting and correct prediction that corrections aren’t possible with an alternative “or not” question.}
  – B&G: positive polar question compatible only with positive compelling contextual evidence.
The problem (again): overt reversal continuations are always positive – di
posed.

We have argued for an account where components of response marking are morpho-syntactically decom-
ted.

Takeaway messages:
- English accomplishes reversal by using a very general correction mechanism – correction focus on
  Neg.
- Partly unified treatment of corrections and echo questions.
  - E.g. echo assertions, following Farkas 2009.

3.2 Decomposing reverse particles

We have argued for an account where components of response marking are morpho-syntactically decom-
posed.
- Properties distributed across particle itself, high and low Σ.
- Allows for unified account of complicated set of data.
- Explains connections between answer particles and Σ-stripping.

As we saw above, reverse answer particles are a problem for this account.
- Arguments for decomposing them remain.
- Difficult to reconcile with ellipsis account of decomposition.

Arguments for decomposition:
- Reverse particles compatible with ellipsis (in every language).
- If a language has reverse particles, and uses answer particles in Σ-stripping contexts, can use reverse
  particle. (Full set of data in the next section.)

The problem (again): overt reversal continuations are always positive – difficult to reconcile with identity
condition in elliptical case.

The proposal: Covert iRev feature in Neg will allow identity condition to be satisfied, while particle
marks a second iRev feature.
- Negative meaning to both. 9
- May look like a hack. (May be a hack!)
- Syntactic implementation of Farkas and Bruce’s 2009 proposal: +/reverse particle negates an already
  negative sentence radical on the table.
- Idea also suggested by Holmberg 2003 (also in the context of an ellipsis account): “the effect of
  [French] si is to neutralize the negation recovered along with the IP recovered from the preceding
  negative question.”
- Justification: grammaticalization of correction in langs. like English, which necessarily involves
  overtly positive morphology.

Note: this is easy to implement for the elliptical case. Our theory predicts double negative meaning if
reverse particle has negative meaning.
- The problem is the overt continuations, which must be positive.
- Feature [iRev] in low Σ must have negative meaning with φ morphology.
- Rev exempt from constraint on Neg that just one instance is interpretable.

4 The syntax of Σ

Goals of this section:
- Lay out and justify our assumptions about the syntax of polarity and polarity items like “yes” and
  “no” in English.
- Explore a prediction about the analysis that is fulfilled in French.

4.1 Polarity and clause structure: two Σs

There is evidence in English for a polarity projection (what we are calling low ΣP) between TP and vP:
- It hosts negative elements like “not” as well as positive elements like emphatic “so” (Laka 1990).

9 A version of this idea was suggested to us at NELS by Patrick Grosz.
However, it has often been argued that universally there is a high polarity projection (also called $\Sigma P$) between CP and TP (see e.g. Laka 1990; Ladusaw 1992; Zanuttini 1997; Holmberg 2003).

- This is the projection "yes" and "no" adjoin to.

Do we need both? Yes, there is evidence for high $\Sigma P$ in English from the responding adverb data seen before. (Also, reduced conditionals, credence ellipsis, "why" questions.)

The exact same set of polarity elements ("so" and "not") that are associated with low $\Sigma$, and to have them be the realization of a different category (e.g. C) misses a generalization.

- If "so"/"not" were in low $\Sigma$, they would be elided along with the rest of the TP.

There is also some evidence from English for the specific placement of high $\Sigma P$ below CP, namely "so"/"not" follow elements in the CP domain:

- The presence of both response particles and $\Sigma$ in cases like (63) seems redundant – they have very similar features qua lexical items.

We will not develop a full account of this contrast here, but intuitively...

- The question then becomes how to rule back in (61) and (62), which we must set aside pending further investigation of $\Sigma$-licensed TP ellipsis, stripping, and pseudo-stripping (cf. Depiante 2000).

A little Basque: Additional evidence for a case where response particles are not $\Sigma$ heads comes from Basque (Laka 1990).

We have been assuming that "yes" and "no" are adverbs (following Huddleston and Pullum 2002), and are adjoined to high $\Sigma P$. Why? What are the cross-linguistic possibilities?

- (Some competing hypotheses: they are heads of $\Sigma$, of C, or of some other projection e.g. Farkas's 2009 PolP)

- "Yes" and "no" are not typical overt realizations of (low or high) $\Sigma$.

- They are adverb-like in their...
  - Optionality.
  - Lack of inflection, arguments, or modifiers.
  - Morphosyntactic independence from other heads in the clausal skeleton (cf. English negation "n't").
  - Ability to re-order with other adverbs, and around whole sentence.

With a responding adverb

With a remnant / stripping

- "Yes" and "no" can also co-occur with a high $\Sigma$ in certain kinds of responses, indicating that they are not the realization of the $\Sigma$ itself.

However, "yes" and "no" do not typically co-occur with an overt $\Sigma$ head like "not" or "so".

The syntax of "yes" and "no"

We have been assuming that "yes" and "no" are adverbs (following Huddleston and Pullum 2002), and are adjoined to high $\Sigma P$. Why? What are the cross-linguistic possibilities?

Alternatively, "so"/"not" could be merged in low $\Sigma$ and raise to a position above TP (i.e. outside the ellipsis site). However, because of the Head Movement Constraint, this would require "so"/"not" to move through T as well, effectively picking up whatever T happens to be present and raising it out of the ellipsis site. However, we never find T elements (e.g. modals) with responding adverbs (A: Will Melisande go to the party? B: * Maybe so will), so a head raising analysis cannot be correct.
Why are answer particles distinct from “if” and “that.” However, this cannot be the case in English since “yes” and “no” can appear below complementizers like “if” and “that”.

Finally, CP: There is yet another hypothesis that should be ruled out about the syntax of “yes” and “no”: that they are somewhere within the CP projection (adjoined, specifier, head).

Laka: English “yes” and “no” are in C.

van Craenenbroeck 2004: Dutch particles are in Spec,CP.

However, this cannot be the case in English since “yes” and “no” can appear below complementizers like “if” and “that”.

(65) a. I think that yes, Alfonso should go to the party.
   b. I think that yes, you not enjoying [facebook games] comes down to your personality and expectations of a game.

(66) a. Do you think the war in Iraq is a good idea? If yes, vote Republican; if no, vote Democratic.
   b. Any family history of sleep problems? If yes, please describe.

(Caveat: we do not believe that this last batch of data works in quite the same way as others...)

Conclusion: “yes” and “no” are adverbs adjoined to ΣP, and not the realization of a Σ head.

4.3 Case study: French

Why are answer particles distinct from Σ? Would we always expect this?

• Prediction: if a language uses Σ heads as response particles, we should find them in embedded Σ-licensed TP ellipsis.

• Prediction borne out in French.

(67) A: Est-il venu à la soirée?
   has-he come to the party
   ‘Did he come to the party?’
   B: Je crois que oui. / Je crois que non.
   I believe that yes. / I believe that no.
   ‘I think so. / I think not.’

(68) A: N’est-il pas venu à la soirée?
   NEG has-he NEG come to the party
   ‘Did he not come to the party?’
   B: Je crois que si. / Je crois que non.
   I think that si / I think that not.
   ‘I think he did / I think he didn’t’

(69) A: Est-il venu à la soirée?

B: Peut-être que oui. / Peut-être que non.
   maybe that yes / maybe that no
   ‘maybe so. / maybe not.’

(70) A: N’est-il pas venu à la soirée?
   B: Peut-être que si. / Peut-être que non.
   maybe that si / maybe that no
   ‘Maybe he did. / Maybe he didn’t.’

• Similar pattern in reduced conditionals (except there is a gap for “si si”).

The upshot: no adverbial polarity particles in French (and, perhaps, many other languages: e.g. Spanish, Italian, Greek, ...?)

• Like English: German, Dutch, ... (see Merchant 2003)

• Lots more cross-linguistic investigation needed...

• Further evidence for decomposing polarity and response systems.

5 Conclusion

We have developed:

• An ellipsis account of isolated polarity particles.

• An ellipsis account of English negative neutralization.

• Two kinds of solutions to the problems reversal responses present to the ellipsis account (correction focus & double negative meaning)

• An explicit account of “yes”/“no”, and their interaction with “so”/“not”.

• The beginnings of what we hope will be a large cross-linguistic investigation of the syntax of polarity particle systems.

Final comments and further directions:

• Ways in which a language can fail to have negative neutralization:
  – Can have a gap for positive response to negative question (e.g. Hebrew.)
  – Can use a third particle instead (many languages).
  – We’d expect there to be languages with a reverse particle that also neutralize with their “yes” – do they exist?

• Certain languages can respond to polar questions using just a finite verb (e.g. Irish: McCloskey 1991, Finnish: Holmberg 2001, 2003).
  – Analyses of these responses have involved ellipsis.
  – We look forward to further connecting our work with this strand of research on the responses to polar questions.

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Note that the situation in French is much more complicated. Some cases that we have analyzed as Σ-stripping in English work differently, e.g. "pourquoi pas / why not". Stripping also uses the lower negative system in French, which we have little to say about. (Merchant 2003, 2006) However, it seems that pseudo-stripping in French uses answer particles, as reported by Farkas 2009. (if that is indeed what it is; Farkas describes it as VP ellipsis but it is exactly parallel to Depiante’s 2000 Spanish pseudo-stripping)
- Prediction: if a V raises high enough, it will be left behind.

- Farkas and Bruce 2009: unified account of polarity particles across different antecedent types.

  - Negative neutralization for other sorts of antecedents?

(71) A: Alfonso isn't going to the store. (Declarative)
B: Yeah. (= he isn't.)
B': No. (= he isn't.)

(72) A: Alfonso isn't going to the store? (Rising declarative)
B: Yes/yeah. (= he isn't.)
B': No. (= he isn't.)

(73) A: Don't talk to Alfonso. (Imperative)
B: Ok. (= I won't.)
B': No. (= I won't.)

- Finally, our account does not necessarily predict that all languages should use ellipsis in polarity particles. It does predict that a language without polarity particle ellipsis would...

  - Have no neutralization of responses to a negative question (§2).
  - Be capable of using a regular (non-reverse) particle for a ‘reversal’ response (§3).
  - Such a language does exist: Amharic!
  - Is there independent evidence for a lack of TP-ellipsis in Amharic? TBD!

Other Σ-licensed TP ellipsis?

- Depiante’s 2000 pseudo-stripping: deletion of IP following leftward movement of remnant; “sí”/”no” inserted to support high Σ.

(74) Ana leyó El Quijote pero María no
  Ana read El Quijote but María not
  ‘Ana read El Quijote but not María.’

(75) Ana no leyó El Quijote pero María sí
  Ana not read El Quijote but María yes
  ‘Ana didn’t read El Quijote but María did.’

- French tag questions.

  - Function of a tag: display a polarity marker; not much else needed.
  - English strategy – use VP ellipsis.
  - Prediction: a language doesn’t really need anything more than Σ to fulfill this function. Why not use Σ-licensed TP ellipsis instead?
  - Even better – what if this happens in a language without adverbal polarity particles?

(76) Il est nerveux ce matin, non?
  he is nervous this morning, no
  ‘He is not nervous this morning, is he?’

(77) Il n’est pas nerveux ce matin, si?
  he not.is not nervous this morning, si
  ‘He is not nervous this morning, is he?’

(78) Il est nerveux ce matin, oui?
  He is nervous this morning, yes
  ‘He is nervous this morning, is he?’

(79) Il n’est pas nerveux ce matin, non?
  he not.is not nervous this morning, no
  ‘He is not nervous this morning, isn’t he?’

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