The syntax of answers to negative yes/no-questions in English

Anders Holmberg
Newcastle University

1.   Introduction

This paper will argue that answers to polar questions or yes/no-questions (YNQs) in English are elliptical expressions with basically the structure (1), where IP is identical to the LF of the IP of the question, containing a polarity variable with two possible values, affirmative or negative, which is assigned a value by the focused polarity expression.

(1)   yes/no Foc [$_{IP}$ ...x...]

The crucial data come from answers to negative questions. English turns out to have a fairly complicated system, with variation depending on which negation is used. The meaning of the answer *yes* in (2) is straightforward, affirming that John is coming.

(2)   Q(uestion):   Isn't John coming, too?
           A(nswer):   Yes. ('John is coming.')

In (3) (for speakers who accept this question as well formed),[1] the meaning of *yes* alone is indeterminate, and it is therefore not a felicitous answer in this context. The longer version is fine, affirming that John is coming.

(3)   Q: Isn't John coming, either?
           A: a.   #Yes.
               b.   Yes, he is.

In (4), there is variation regarding the interpretation of *yes*. Depending on the context it can be a confirmation of the negation in the question, meaning 'John is not coming'. In other contexts it will be an infelicitous answer, as in (3).

(4)   Q: Is John not coming?
           A: a.   Yes. ('John is not coming.')
               b.   #Yes.

In all three cases the (bare) answer *no* is unambiguous, meaning that John is not coming.
       It will be shown that this variation is systematic and dependent on the scope of the negation in the question, which is, in part a matter of choice of negation. The difference between (2) and (3) will be shown to be an effect of where the negation in the question is interpreted, outside or inside IP (basically following Ladd 1981). When the negation in the question is interpreted IP-internally, this leads to a feature clash with the affirmative meaning of *yes* in the answer. The variation in (4) is explained in part by the fact that there are two negations *not* in English, a higher *not* with sentential

---

[1] For some speakers of English a question formed with *n't*, combined with a negative polarity item is not well formed. I return to this point in section 5.

scope, and a lower *not*, with scope over vP only. When the question is analyzed as instantiating the lower *not*, the answer *yes* confirms the negation. When the question is analyzed as instantiating the higher not, the answer *yes* leads to a feature clash between affirmation and negation.

The reason why the precise syntax of the IP of the question matters for the interpretation of the answer is that the answer inherits that IP, although it is elided in the case of the bare *yes* and *no* answers. The more general hypothesis defended in this paper is that answers to YNQs have the structure (1) universally, although the focused affirmative or negative operator can take quite different forms. In English and many other languages the operator is spelled out as a particle, by hypothesis externally merged in spec of Focus. In many other languages it is carried by a verb, or a negated verb, echoing the verb in the question, moved to the spec of Focus; see Holmberg (2001, 2007); Jones (1999), Martins (1994, 2006). In the latter case the answers are, quite uncontroversially, derived by ellipsis, leaving only a stranded verb or auxiliary spelled out to convey 'yes'. The claim, to be substantiated in the present paper on the basis of observations mainly from English negative questions and their answers, is that answers to YNQs consisting of just a particle conveying affirmation or negation, are elliptical expressions, too, with the structure (1), where the IP is elided under identity with the IP of the question.

There is a well known difference between languages that have a truth-based answering system, also called an agreement/disagreement system, as in Chinese and Japanese, and languages that have a polarity-based system, as in English and French (Kuno 1973, Jones 1999: 8ff.). The received view is that, in the truth-based system, a negative question is answered 'yes' to confirm the negation, while in the polarity-based system a negative question is answered 'no' to confirm the negation. When it comes to English, this is a simplification, as English exhibits properties of both systems, depending on the syntax of the negation. This suggests that the parameter has to do with differences in the syntax of negation, rather than, for example, differences in the meaning of answering particles.

 2.   Two parameters concerning answers to negative YNQs
Basically two parameters are recognized in the literature distinguishing among languages as regards answers to negative YNQs. The first, which is the main issue in the present paper, concerns how to confirm the negation of the question. There are basically two systems, the polarity-based system, typical of English, Finnish, French, and Swedish, among other languages, and the truth-based system (also called the agreement/disagreement system), typical of Chinese and Japanese, among other languages (Jones 1999: 8ff.).

(5)   Q: Dricker dom inte kaffe?   [Swedish]
               drink they   not coffee
               'Don't they drink coffee?'
        A: Nej.
               no   ['They don't drink coffee.']

(6)   Q: keoi-dei   m   jam   gaafe? [2]   [Cantonese]
               he/she-PL not drink coffee
               Do they not drink coffee?"

A: hai.
yes ['They don't drink coffee.']

In Swedish the answer particle agrees, as it were, with the negation of the question. This is the polarity-based system. In Cantonese, the answer particle affirms the truth of the negation in the question: 'Yes,(it is the case that) they don't drink coffee'.

The other parameter concerns how to contradict the negation of a negative question.

(7)   Q: Does he not drink coffee?
        A: a. ?Yes.
           b.   Yes he does.

(8)   Q: Il n'aime   pas du café?   [French]
                he NEG-likes NEG coffee
                'Doesn't he drink coffee?'
        A: a. *Oui.
           b.   Si.
                'Yes he does.'

(9)   Q: keoi-dei   m   jam   gaafe?   [Cantonese]
                'Do they not drink coffee?'
        A: m   hai[3]
                not yes
                'Yes they do.'

English and French both follow the polarity-based system, but for reasons to be discussed below, the usual affirmation words, in English (bare) *yes* and in French *oui*, are not felicitous answers in either case. English resorts to longer expression (*yes* followed by a clause with VP-ellipsis), while French employs a special affirmative particle. Like French are Scandinavian (Swedish will be discussed in the present paper), German and Arabic. Cantonese, following the truth-based system, has a negative answer to contradict the negation in the question ('It is not the case that they don't drink coffee').

An interesting question is where the distinction between the truth-based and the polarity-based system actually resides. Is it just a matter of convention, comparable to whether we shake hands or make a bow when we meet, or does the distinction reside in the lexicon, in the meaning of the answer particles (keeping in mind, though, that not all languages use answer particles), or does it reside in the syntax? It will be shown in this paper that there is variation internally to English between the two systems depending on which negation is employed. This suggests that this may be the source of the cross-linguistic distinction as well. I will end up proposing a hybrid theory, though: The distinction is due to variation in the meaning of the negative answer particle and in the syntax of negation.

3.   Kramer & Rawlins: a theory of answer particles in English
I will begin by brief review of a recent proposal regarding the syntax of answers to YNQs in English, also based on the idea that they are elliptical expressions, and also taking the syntax of negative

_____

[3] The word *hai* doubles as the copula 'be'. Arguably the answer in (8) could be glossed as 'not is'.

questions as providing the crucial evidence. Kramer & Rawlins (2009, 2010), henceforth K&R,[4] take as their starting point the following observation about English: Answers to negative YNQs with *n't* cliticized to a moved auxiliary, are, according to them, well-behaved, and look just like answers to neutral questions.

(10)   Q: Isn't he coming?
        A: a.   Yes.
            b.   No .

Answer to YNQs with *not*, as in (11), are different: The answer *yes* confirms the negation of the question, same as the answer *no*.[5]

(11)   Q: Is he not coming?
        A: a.   Yes. ['He is not coming.']
            b.   No.   ['He is not coming.']

They refer to this as *negative neutralization*, as *yes* and *no* appear to mean the same thing (the accuracy of the observation will be discussed below). The analysis they propose is the following: First, the answers are derived by TP-ellipsis conditioned by identity with the TP of the question. They are not completely explicit as regards the detailed syntax of the question, but it is implied that it is roughly (12a), while the answer has the structure (12b):

(12)a.   is+C [$_{TP}$ he is+T [$_\Sigma$ not] [$_{VP}$ is coming]]]
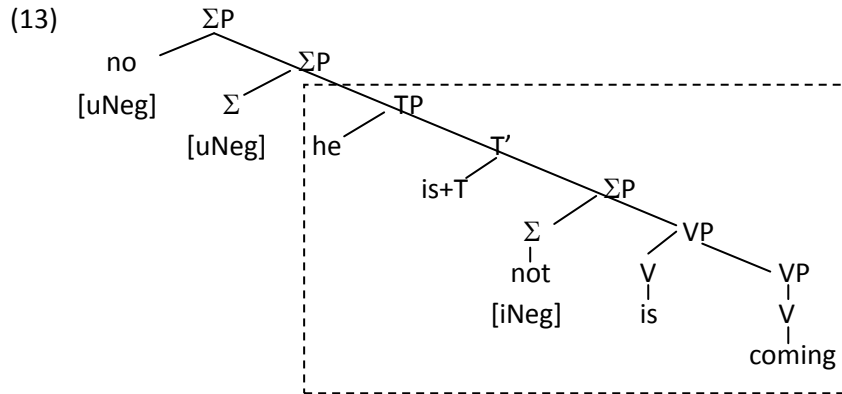
b.
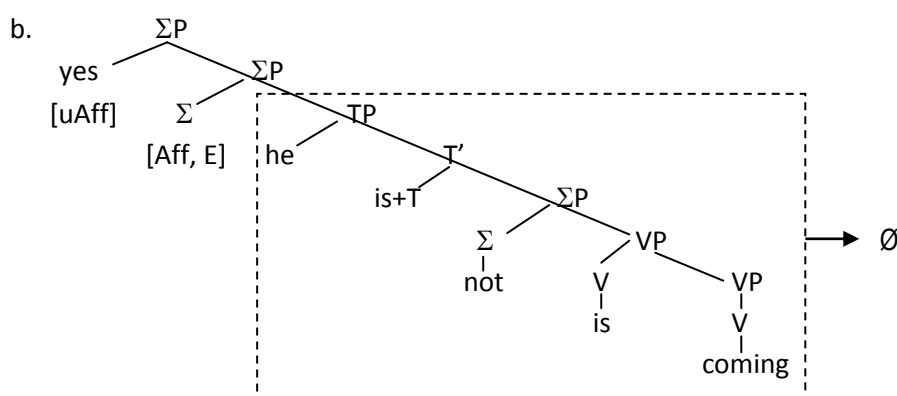
Σ is a polarity head, first discussed by Laka (1994). The higher Σ in (12b) is interpretable affirmative, while *yes* is uninterpretable affirmative [uAff].[6] The feature [E] is Merchant's (2001) ellipsis-feature,

---

[4] Kramer & Rawlins (2009) is a fairly short paper, while Kramer & Rawlins (2010) is a rich handout with wider coverage than the paper and a slightly more refined version of the theory. Except where indicated otherwise I treat them as a unit.
[5] K&R refer to questions with *n't* as 'outer negation' and questions with *not* as 'inner negation'. In Ladd's (1981) seminal paper, on the other hand, the notions 'inner' and 'outer' negation refer to the interpretation of negation in English yes/no questions, whether they are formed with *n't* or *not*, as taking scope inside or outside the proposition. This will be discussed in section 5. To avoid confusion, I will not use the notions inner and outer negation, or else make explicit which terminology I follow.
[6] K&R are not explicit on this formal point. K&R (2009) fn. 8 say "on our proposal positive Σs are unmarked, and effectively featureless". A featureless category is a contradiction in terms, though, so this analysis cannot
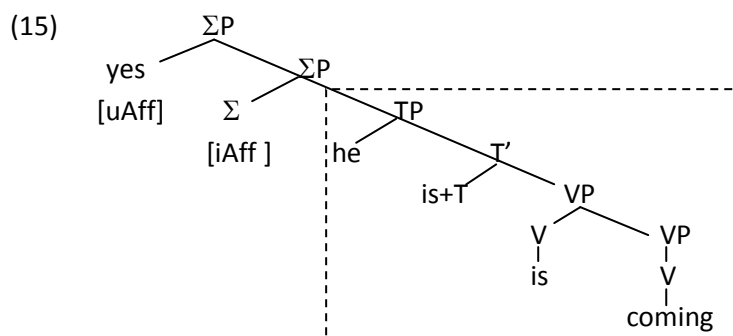
which causes its complement (the boxed portion of the tree) to be deleted, i.e. spelled out as null in PF. I will henceforth omit this feature and the symbol '→ Ø' from the trees. The meaning of (12b) is then roughly 'affirmation that he is not coming'. This looks similar to what we see in the Cantonese example (6). However, English does not represent the truth-based system, since the negative particle answer (11b) also means that he is not coming. K&R's analysis is (13):

(13)

```
            ΣP
          /    \
        no      ΣP
      [uNeg]   /   \
             Σ      TP
           [uNeg]  /  \
                 he    T'
                      /  \
                  is+T    ΣP
                         /   \
                       Σ      VP
                       |     /  \
                      not   V    VP
                    [iNeg]  |    |
                           is    V
                                 |
                              coming
```

Since the question contains a negation, the elided TP of the answer does, too (or it couldn't be elided). The relation between the negative particle, high Σ and low Σ is, according to K&R, a case of negative concord. The interpretable negation is the one inside TP, the ellipsis site. High Σ and the negative particle each have an uninterpretable negative feature. The result is a negative concord chain.

As for non-negative questions, for example (14), K&R assert that the syntax of 'yes' is straightforward, shown in (15). [7]

(14)   Q: Is he coming?
        A: a. Yes.
            b. No.

(15)

```
          ΣP
        /    \
      yes     ΣP
    [uAff]   /   \
           Σ      TP
         [iAff]  /  \
               he    T'
                    /  \
                is+T    VP
                       /  \
                      V    VP
                      |    |
                     is    V
                           |
                        coming
```

---

be maintained. As discussed in the text below, K&R assume that the negative answer particle *no* is 'uninterpretable negative', [uNeg], and enters an Agree-relation with high Σ and sometimes low Σ, either of which can be interpretable or uninterpretable negative. Consistency would seem to favour extending the same analysis to the affirmative particle. K&R assign *yes* and *no* the categorial label Adverb and present an argument in favour of this, namely the fact that they can co-occur, in either order, with speech act adverbs like *frankly*: *Frankly no./ No, frankly*. I omit this label for ease of exposition.

[7] K&R do not explicitly represent affirmation as a feature; see the previous footnote.

The syntax of 'no' is less straightforward.

(16)
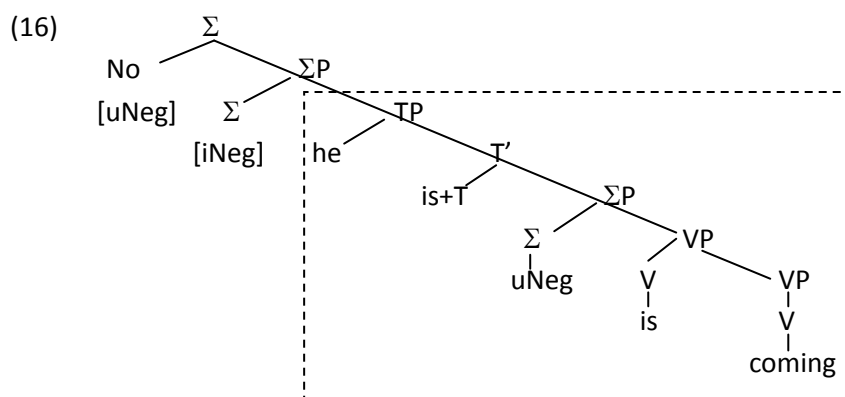
Here the ellipsis site includes an uninterpretable negative feature which does not figure in the question (presumably). So the claim must be that the Σ-feature does not count for the identity condition as long as it is uninterpretable.[8]

In negative questions with *n't* instead of *not* the negation is, they assume, interpreted outside the TP. I take this to mean that the copy of the negation within TP is [uNeg] while the copy outside is [iNeg]. Therefore the answers work as they do in the case of non-negative questions, under K&R's theory (the correctness of the observation will be discussed below).

(17)   Q: Isn't he coming?
                isn't+C [$_{TP}$ he <isn't> [$_{VP}$ <is> coming]]
                [iNeg]   [uNeg]
        A: a. Yes. ('He is coming.')
            b. No. ('He is not coming'.)

4.   On negative questions with *not*

Concerning the answer (11a) to negative questions with *not* (*yes* meaning 'he isn't coming'), Kramer & Rawlins (2010) mention that "there is some variation in how acceptable this response is among English speakers". In connection with a taught, advanced syntax module in the spring of 2011 at Newcastle University some students did systematic, questionnaire-based investigations of interpretations of answers to negative questions with inner and outer negation. A task format that several students used was questions such as

(18)   Imagine that you ask somebody the question
        Is John not going to the party?
        and the person answers: *Yes*.
        Would you take the answer to mean (a) or (b)?
        (a) John is not going to the party.

---

[8] It is not obvious that K&R need to assume any Σ-feature at all in TP in this case, especially as they don't explicitly assume an affirmative-valued Σ in affirmative answers. If TP is pronounced, it will be pronounced with a negation: *No, he is not coming*. But that could be a different case from bare *No*; it could be the case when TP does contain an interpretable negation and precisely therefore must be pronounced.

(b) John is going to the party.

Few informants took the the answer to mean (a). More often they deemed it to mean (b), or, in those investigations where the question format allowed it, some informants deemed the answer not to be felicitous with either interpretation, preferring answers such as *Yes he is* to convey unambiguous denial of the negation of the question. Kramer and Rawlins (2012) reported a clever experiment carried out online with a large number of subjects, which also basically confirmed that bare yes-answers to negative questions with *not* either confirm the negation in the question, or is interpreted as indeterminate.

How can we make sense of this variation in answers to negative questions? At this point I will introduce a partly different theory of answers to YNQs, articulating further the theory in Holmberg (2001, 2007).

5.   Valueing polarity

I assume sentence-internal Σ, which I will call Pol(arity), has three values: affirmative, negative, and open, that is neither affirmative nor negative. Open polarity is what open YNQs have.

(19)   a.   Is he coming?
   b.
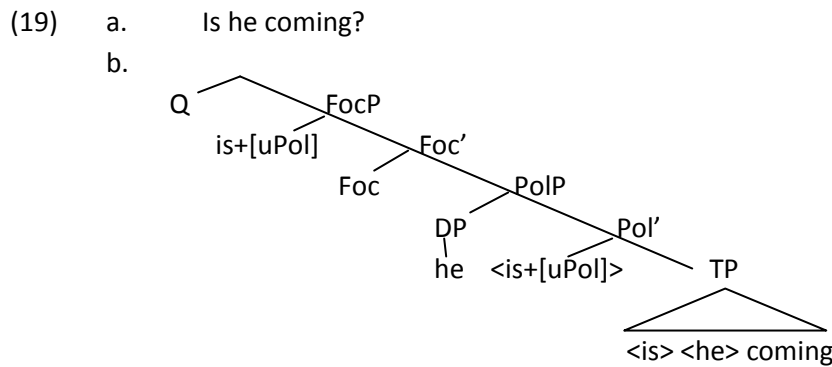
The open polarity feature in PolP (the highest projection in the IP-domain) is probed and attracted by Foc, and undergoes movement ('T-to-C', now redefined as Pol-to-C) which is essentially wh-movement of open polarity (cf. Holmberg 2003). Open polarity is a variable restricted to two possible values, affirmative or negative. For reasons to be made clear later, I assume the polarity variable to be formally an unvalued feature, 'unvalued polarity'.   Q in (19) is an illocutionary force feature, meaning 'Tell me the value of the focused variable (i.e. [uPol] in this case), such that the proposition P is true'. The claim is that all questions have essentially this structure: A variable (a wh-phrase or a variable Pol) is probed by Foc and moved, overtly or covertly, to the CP-domain. In direct questions it is combined with an illocutionary force feature telling the addressee to provide a value (or values, in the case of wh-questions about pluralities) for the variable.[9]

The affirmative answer has the structure (20):

---

[9] It is not crucial for the discussion to follow that the head triggering movement in questions is 'ordinary' Foc, rather than a dedicated question-focus head, say, a dedicated polarity-focusing head such as Laka's (1994) Σ, in the case of YNQs. See Miyagawa (2010), though, for arguments that wh-movement is triggered by (ordinary) Foc.

(20)
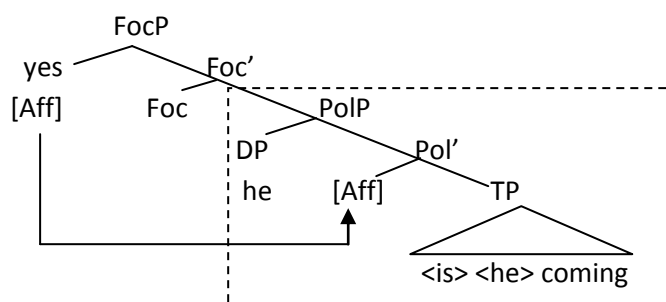
The affirmative particle, focused by virtue of being merged with the FocP, is an operator assigning affirmative value to the sentence-internal unvalued polarity feature. The PolP is deleted/elided, i.e. is spelled out as null in PF, possible because of the identity with the PolP of the preceding question. The negative answer has the same structure, where the negative particle *no* assigns negative value to the sentence-internal polarity feature.

The identity condition required for ellipsis in answers to YNQs is the one familiar from work on other forms of ellipsis, for example VP-ellipsis (Williams (1977), Rooth 1992, Merchant 2001). The following statement is precise enough for the purposes of this paper.

(21)   The elided constituent must have a salient antecedent which is identical at LF up to assignment of values to variables.

Just as VP-ellipsis is possible in, for example, (22a) because the two clauses both have the VP (22b), prior to assignment of value to the variable (via anaphoric binding), so IP-ellipsis (i.e. PolP-ellipsis) in (23a) is possible because the question and the answer both have the PolP (23b) prior to assignment of value to the polarity variable, under the analysis in (19) and (20).

(22)   a.   John took his car, and I did, too.
        b.   [$_{VP}$ take [$_{DP}$ x]'s car]

(23)   a.   Q: Is John coming?
              A: Yes.
        b.   [$_{PolP}$ John [$_{Pol}$ x] is coming]

The formulation "identical at LF" is meant to convey that syntactic identity is required. Just semantic identity ('mutual entailment', as in Merchant's (2001) formulation of the identity condition on ellipsis) is not sufficient.

(24)   a.   Q: Did John fail the exam?
              A: No. ('He didn't fail.')
        b.   Q: Did John not pass the exam?
              A: No. ('He failed.')

There is, or at least can be, mutual entailment between (the propositions of) the questions in (24a,b), yet the answers 'no' do not have the same meaning in the two cases (see Krifka 2012, citing work by A. Brasoveanu).

Before considering answers to negative questions, consider contradicting the negation of a statement.
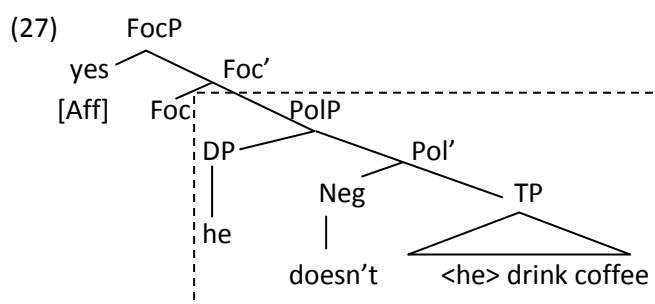
(25)   He doesn't drink coffee.
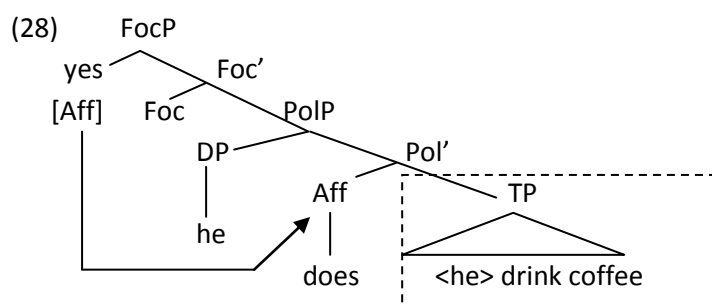   a.   #Yes.
    b.   Yes he does.

Yes and *no*, as well as being answers to YNQs, are commonly used as responses to declaratives, indicating agreement or disagreement. Clearly, responding just *Yes* is not felicitous in the context of (25). The preferred alternative is (b). This follows from the analysis where *yes* and *no* are derived by ellipsis. The statement has the structure (26).

(26)

```
            PolP
        DP        Pol'
        |      Neg     TP
        he      |     /   \
             doesn't <he> drink coffee
```
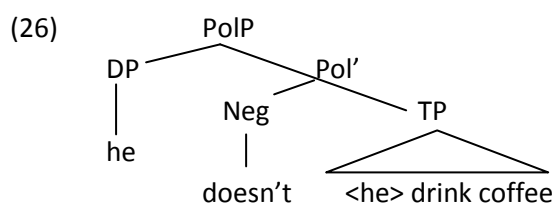
The answer *yes* must have the structure (27), for the PolP to be elided. But this structure has an affirmative focused operator which has no variable to bind, since polarity is already valued negative.

(27)

```
        FocP
     yes      Foc'
    [Aff]  Foc      PolP
               DP         Pol'
               |      Neg       TP
               he      |      /    \
                    doesn't  <he> drink coffee
```

The well-formed alternative is a sentence where just the TP (or VP) is elided, under identity with the TP/VP of the preceding statement, and polarity is merged unvalued, being valued by the affirmative operator.

(28)

```
        FocP
     yes      Foc'
    [Aff]  Foc      PolP
               DP         Pol'
               |      Aff       TP
               he      |      /    \
                    does    <he> drink coffee
```

Now consider answers to negative questions which contradict the negation of the question. Consider first the case of negative questions with the clitic negation *-n't.* As first discussed by Ladd (1981), there are two varieties of questions with *–n't*, what he called outer and inner negation. The distinction shows clearly when the question contains a negative polarity item (NPI).

(29)   a.   Isn't John coming, too?
         b.   Isn't John coming, either?

(29a) has outer negation, meaning that the negation has scope outside IP, and therefore does not license an NPI in IP (hence *too*, not *either*), while in (29b) the negation has scope inside IP, licensing an NPI.

There is dialectal variation with regard to (29b), and more generally with regard to the inner negation reading of *n't*, which has not been noted before in the literature, as far as I am aware (I am grateful to Craig Sailor, p.c., for bringing this to my attention). Some speakers of English find (29b) sharply ungrammatical. There may be a partial correlation with American vs. British English, with British speakers more often accepting the construction as perfectly well formed. But there are American English speakers who accept it (in fact, Bob Ladd is American), and some very preliminary investigation of mine indicates that not all British speakers do. The discussion below of the inner negation reading of *n't* obviously does not apply to the variety of English in which it is ungrammatical.

Outer negation conveys expectation of a positive answer (it has positive bias), and can be answered 'yes'.

(30)   Q: Isn't John coming, too?
         A: Yes.

This, I take it, is the case discussed by K&R (see (10)). The negation in the question is interpreted in its derived position outside IP, and may indeed be first merged in that position. The answer therefore does not include a negation in the elided PolP; it works like a neutral question.

With inner negation, on the other hand, the negation is interpreted inside IP, conveys expectation of a negative answer, and cannot well be answered with just plain *yes*.

(31)   Q: Isn't John coming, either?
         A: a. #Yes.
                b. Yes he is.

The short answer is infelicitous for the same reason as in (25) (the response to a negative declarative): Given the structure of the question, (32), the affirmative operator *Yes* has no variable to bind in the elliptical answer (33).
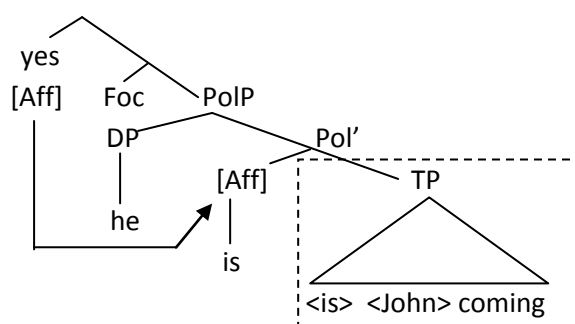
(32)

(33)

yes
[Aff]   Foc¦   PolP
        ¦DP   Pol'
        ¦   Neg   TP
        ¦John
        ¦   isn't   <is> <John> coming (either)¦
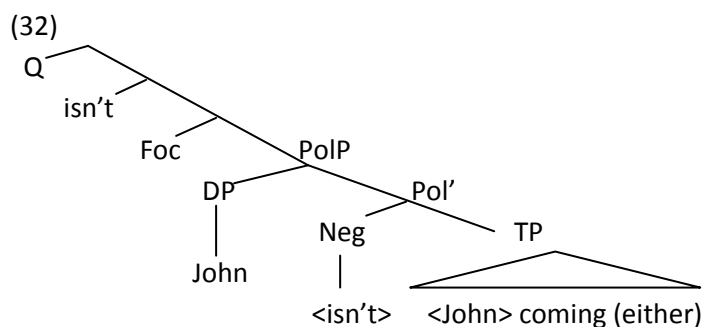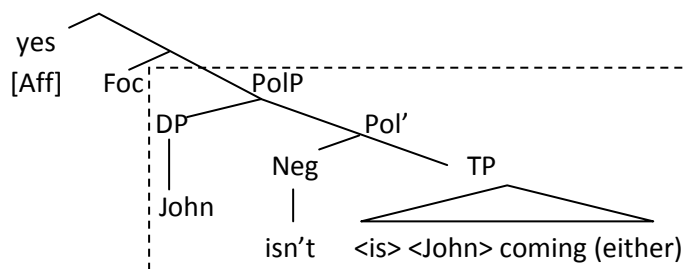
The longer answer has an unvalued polarity feature bound by the affirmative operator. Only the VP is identical to that of the question.

(34)

yes
[Aff]   Foc   PolP
            DP   Pol'
                   [Aff]   TP
            he
                   is
                        <is> <John> coming

The same explanation can be extended to answers to negative questions with *not*, now considering the contexts where plain *yes* does not confirm the negation (the negative neutralization case, to be discussed in the next section), but instead is an infelicitous denial of the negation.

(35)   Q: Is John not coming?
       A: a. #Yes.
           b. Yes he is.

The ellipsis of PolP in the short answer presupposes that the PolP of the answer is identical to that of the question. The PolP of the question is valued negative, so the affirmative operator in the answer has no variable to bind. The problem is avoided if what is elided in the answer is just the VP/TP.

6.   The two negations *not*

So how come there is variation with regard to answering *yes* to a question with *not*, such that the answer can sometimes, or for some speakers, confirm the negation ('Yes, he is not coming.'), while in other contexts, or for other speakers, it is a failed disconfirmation of the negation of the question?

        Consider the following observation: If the question has an adverb preceding the negation, answering *yes* unambiguously confirms the negation.

(36)   Q: Does John sometimes not show up for work?
       A: a. Yes.
           b. ?No.

The affirmative answer is well-formed in any context and (as far as I know) for any speaker, unambiguously meaning 'John sometimes does not show up for work ', that is confirming the negation in the question. The bare negative answer is somewhat hard to process, but the reading it

has, after a moment's reflection, is contradiction of the negation, i.e. 'John does not sometimes not show up for work', that is to say 'He always shows up for work'. It takes some additional processing effort presumably because of the double negation interacting with the adverb.

What this means is that with inclusion of the adverb the negative neutralization effect completely disappears. The following are two more examples.

(37) Q: Did he once more not return the books on time?
      A: a. Yes.
         b. ?No.

(38) Q: Did you purposely not dress up for this occasion?
      A: a. Yes.
         b. ?No.

In both of them the affirmative answer unambiguously confirms the negation: 'Yes, once more he didn't return the books', and 'Yes, I purposely didn't dress up'. The negative answer is again somewhat hard to process, but not impossible. The reading in (37) is 'No, he did not once more not return the books on time', i.e. 'He returned them on time, this time'. The reading in (38) is 'No, I did not purposely not dress up'. In this case the preferred reading is that the negative answer negates the manner adverb: 'No, it wasn't on purpose that I didn't dress up (I just wasn't aware of the dress code)'. Crucially, in all these cases the negative neutralization effect disappears: *Yes* and *No* have distinct, antonymous readings.[10] I will return to this adverb effect in more detail in section 8.

Part of the explanation for this is to do with the fact that English has two negations *not*: A higher *not*, which alternates with *n't* and has sentential scope, and a lower *not*, which is an adjunct to vP/VP, and negates that constituent. The two negations can co-occur in the same sentence:

(39) a.   You can't/cannot not go to church and call yourself a good Christian.
      b.   You mustn't/must not ever not address him as 'Sir'.

As shown, this double negation is not dependent on using *–n't*: There can be two interpretable negations *not* co-occurring in the same simple sentence. The effect of inserting the adverbs in the questions (36-38) is that of inducing (or forcing) the lower negation reading. The structure of the question (36), for example, is then basically (40):

---

[10] The effect is clearest with adverbs low on the Cinque hierarchy (Cinque 1999), which is expected given the discussion below in the text. It is less pronounced in the following examples, featuring higher (epistemic) adverbs.
(i)   Is he really not the right man for the job?
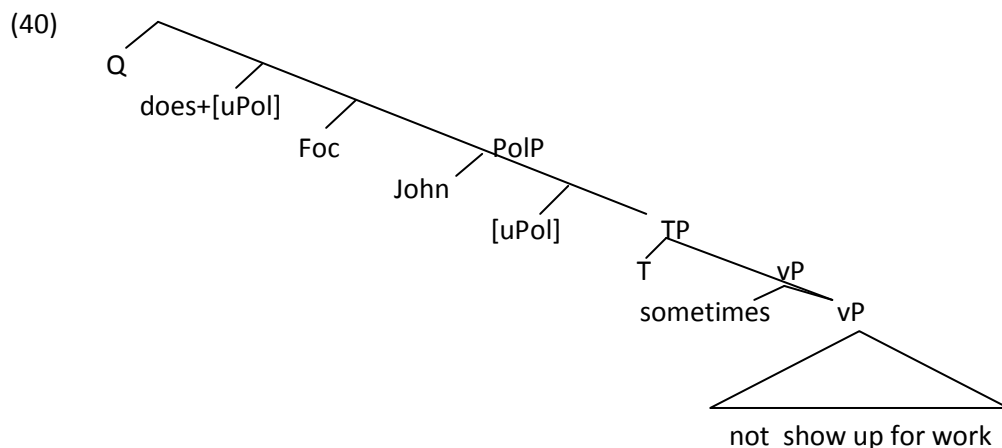   Yes./No.
(ii)   Did you actually not recognize her?
         Yes./No.
(iii)   Is John definitely not coming?
        Yes/No.
The question is whether *yes* unambiguously affirms the negative proposition, and whether *no* can have the double negation reading ('He really is the right man', etc.). The matter needs proper investigation.

(40)

Q
does+[uPol]
Foc
John PolP
[uPol] TP
T vP
sometimes vP
not show up for work

The affirmative answer has an identical PolP, modulo assignment of value to the polarity variable (unvalued Pol), making PolP-ellipsis possible. The affirmative operator assigns affirmative value to [uPol].

(41)

Yes
Foc PolP
John
[Aff] TP
T
sometimes vP
not show up for work
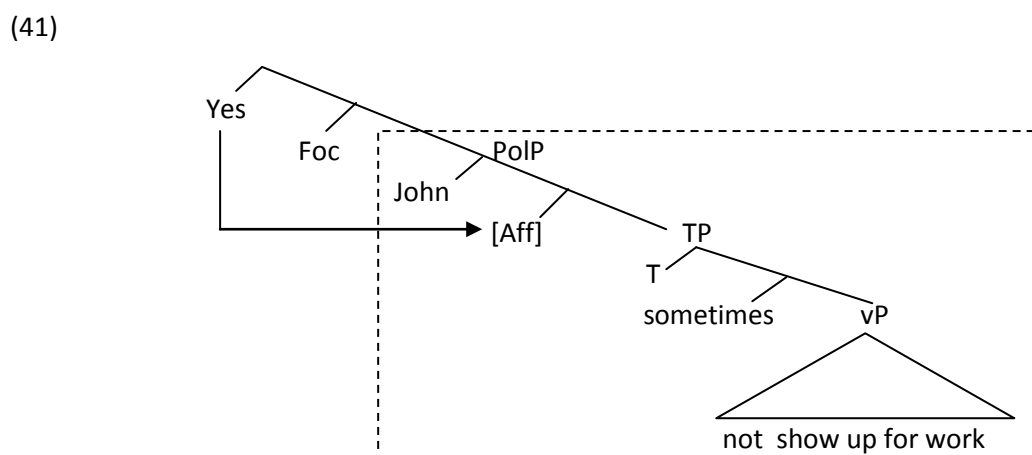
This yields affirmation of the TP containing the low negation, i.e. the reading 'John sometimes does not show up for work'. In the bare negative reply, *No* assigns negative polarity to [uPol]. The resulting reading, as stated above, is 'John does not sometimes/ever not show up for work', i.e. 'He always shows up for work'.[11] The same analysis applies to (37) and (38), with the resulting interpretations discussed above.

   The picture which emerges is that there are three structurally distinct and interpretable positions for the negation in English negative YNQs. There is Ladd's outer negation case, where *n't* is interpreted outside IP. Let us call this **highest negation**. Then there is the **low negation** case, most clearly seen in (36-38), where *not* is interpreted with scope over vP only. Finally there is the **middle negation** case, where *n't* or *not* are interpreted IP-internally, but with sentential scope. As mentioned, for some speakers of English *n't* does not have the middle negation reading.

   A question with *not* is, then, potentially ambiguous between a middle negation and a low negation meaning.

---

[11] I return to the more precise analysis of negation in section 8.

(42)   Q: Is John not coming?
       A: Yes.

This accounts for the ambiguity of the affirmative answer: Either it is a failed or incomplete contradiction of the middle negation in the question (failed because the affirmative operator requires unvalued Pol but encounters a negatively valued Pol), or it is a confirmation of the low negation. [12]

      The negative neutralization that K&R observed, exemplified once more in (43), is then the result when the negation in the question is taken to be low *not* in the case of the answer *yes*, and middle *not* in the case of the answer *no*.

(43)   Q: Is John not coming?
       A: Yes. ('He is not coming.')
       A: No. ('He is not coming.')

Consider the syntax of the negative answer to a negative question. When it confirms the negation, as expected under the polarity-based system, K&R suggests this is an effect of negative concord. Adapting this idea to the present framework, the structure would be basically (44)

(44)   No   Foc [$_{PolP}$ John is   not   [$_{VP}$ <is> coming]]
       [uNeg]   [iNeg]

Assuming Chomsky's theory of formal features (Chomsky 1995, 2001), only one of the two negative features can be interpretable/inherently valued. K&R's analysis is shown in (13). Crucial in their theory is the abstract high C-type head Σ, which can be affirmative or negative, and, if negative, can be interpretable or uninterpretable. In the case of negative answers to negative questions, they propose, Σ is uninterpretable, forming a negative concord chain with the interpretable negation *not* and the uninterpretable answer particle *no*. In the present theory, which does not rely on varieties of high Σ, but where the particles themselves provide interpretable negative or affirmative feature values, the corresponding analysis would have two varieties of *no*: One would be inherently valued, interpretable [Neg] (or [iNeg]), the one at work in negative answers to non-negative questions, as in (45), where it assigns negative value to [uPol].

(45)   Q: Is John coming.
       A: No   [John [–Pol] is coming]
               [iNeg]⸻⸻↑

The other one would be uninterpretable, being the uninterpretable member of a negative concord chain (Zeiljstra (2004), Haegeman and Lohndahl 2010); that would be the one at work in negative

---

[12] An observation made by some of my students investigating answers to English negative questions was that stress on the negation in the question favoured the answer *yes* as confirmation of the negation.
(i)   Q: Is John NOT coming?
      A: Yes. [Preferred reading: 'He is not coming.]
It seems entirely plausible that stress on *not* has the effect of inducing the low reading of *not*, though not necessarily so, unlike the adverb in (36)-(38).

answers to negative questions, as in (44), where Pol provides the inherently valued negative feature. In this perspective, a difference between languages with a polarity-based answering system and a truth-based answering system would be that only the former have an inherently uninterpretable negative answer particle, making possible a negative concord chain in answers to negative questions.

In this theory, the effect of the adverb in the negative answer to, for example, (38), given in (46), is that the intervening adverb blocks the formation of a negative concord chain between *no* and the low *not* (as pointed out by a referee for *Lingua*).

(46)   Q: Did you purposely not dress up for this occasion?
           A: No. ('I did not purposely not dress up.')

Instead, two negation chains are formed, one made up of interpretable *no* and the unvalued polarity head, and one by the low (interpretable) *not*.

(47)   no [I [–Pol] purposely [$_{vP}$ not dress up]]
     [iNeg]⎯⎯↑   [iNeg]

When spelled out without ellipsis, this is *No, I did not purposely not dress up*.

As will be discussed in section 8, this picture will have to be modified when other languages are taken into account.[13]

Summarizing, if my analysis of affirmative answers to negative questions with *not* is correct, the affirmative answer in (43) requires analyzing *not* as low, vP-adjoined negation, while the negative answer relies on middle negation. The evidence is that the negative neutralization disappears when the low negation reading of *not* is forced by insertion of an adverb, as in (36-38).

7.   Other cases of negative neutralization

K&R make the observation that negative neutralization occurs not just with *yes* and *no* but with certain adverbs as well.

(48)   Q: Is John not coming?
           A: Maybe (so). ['Maybe he isn't.']
           A: Maybe not. ['Maybe he isn't.']

---

[13] There is a theoretical reason, as well, to question some of the details of this theory. Standard cases of negative concord, as (i) in varieties of colloquial English, can be analyzed as assignment of negative value to a variable, as in (ii), which is then spelled out as *nothing* and *nobody*.
(i)   I didn't do nothing to nobody.
(ii)   I NEG do x-thing to x-body
In affirmative contexts the variables are assigned other features and are spelled out differently (*something*, *everybody*, etc.). The negative answer particle *no* is hardly a variable on a par with x-thing/x-body. Postulating that it is marked [uNeg] provides the required formal coding for negative concord, but [uNeg] is a questionable formal construct. 'Negative' is not an attribute that takes different values; it *is* a value of the attribute Polarity, so [uNeg] cannot be taken to mean 'unvalued negative'. 'Uninterpretable negative' is a controversial notion as well. It requires postulating [uninterpretable feature] as a theoretical primitive; see Chomsky (2001) (who questions it), Pesetsky and Torrego (2007), Zeiljstra (2004) (who defend it).

Both answers mean that John is maybe not coming. Under K&R's theory, this follows from the ellipsis hypothesis: Ellipsis presupposes that TP (our PolP)in the reply is (interpretable) negative. The variation between *maybe (so)* and *maybe not* is (as far as I understand) a matter of which feature value the abstract high Σ has. Whether affirmative or negative, the proposition 'John is coming' is negative.

The prediction made by the theory articulated here is that, because negative neutralization is an effect of the structural ambiguity of *not*, it will disappear if the middle reading of *not* is excluded by inserting an adverb in the question.

(49)   Q: Does John sometimes not show up for work?
       A: a.   Maybe (so). ['Maybe John sometimes does not show up for work.']
           b.   Maybe not.

Insofar as the (b) reply can be interpreted, it means that John maybe doesn't sometimes (or ever) not show up for work, i.e. maybe he always shows up for work. That is to say, our prediction is right.

K&R (2010) discuss certain other neutralization effects. In all of these, the neutralization effect disappears when the middle reading of *not* is blocked. One of them is the following:

(50)   Q: Is John not coming?
       A: a.   If so, it will be fun.   ['If he isn't coming…']
           b.   If not, it will be fun. ['If he isn't coming…']

Again, blocking the middle reading of *not* should allow the (a)-reply but disallow, or change the meaning of, the (b)-reply, which is what we see in (51).

(51)   Q: Did you purposely not dress up for this occasion?
       A: a.   If so, have I hurt somebody's feelings? ['If I have purposely not dressed up…']
           b.   If not, have I hurt somebody's feelings? [?'If I didn't purposely dress up…']

I conclude that the hypothesis that negative neutralization is an effect of the structural ambiguity of the negation *not* is confirmed.

8.   Negation and adverbs in Swedish

The account of the adverb effect above does not tell the whole story. Consider the fact that the adverb has a similar effect in Swedish as in English, even though Swedish does not have two negations, one corresponding to middle *not* and one to low *not*.

First , Swedish has a robustly polarity-based system in that a negative reply to a negative question confirms the negation. Replying with the standard affirmation particle *ja* is ungrammatical. To contradict the negation, Swedish employs a polarity-reversing affirmative particle *jo*; a system found in several other languages, including all the Scandinavian languages, German, French, and Standard Arabic.

(52)   Q: Kom Johan inte i   tid?   [Swedish]
                came Johan not on time
                'Did Johan not come on time?'
        A: a.   *Ja.
           b.   Nej. ['He didn't come on time.']
           c.   Jo.   ['He did come on time.']

Inserting an adverb has the same effect as in English: Now the standard affirmative particle confirms the negation, while the negation (subject to additional processing effort) contradicts the negation.

(53)   Q: Kom Johan **ibland**   inte i tid?   [Swedish]
                came Johan sometimes not on time
                'Did Johan sometimes not come on time?'
        A: a.   Ja.   ['He sometimes didn't come on time.']
        A: b.   ?Nej. ['He always got here on time.']

Swedish does not allow English-style double negation:

(54)   *Man kan **inte inte** gå i kyrkan, ...
             you can   not not go to Church...

To express the intended reading Swedish has to resort to something like (55).

(55)   Man kan inte undvika att gå i kyrkan, ...
        you   can not avoid   going to Church

Clearly, this is because Swedish does not have a negation which would scope over VP (or vP) only, so it has to resort to a lexically encoded negation such as the verb *undvika* 'avoid'.
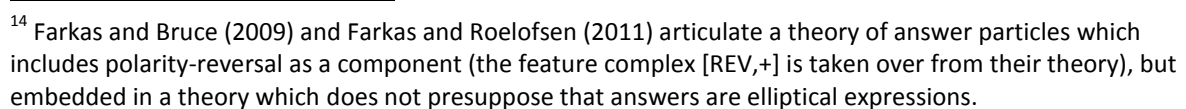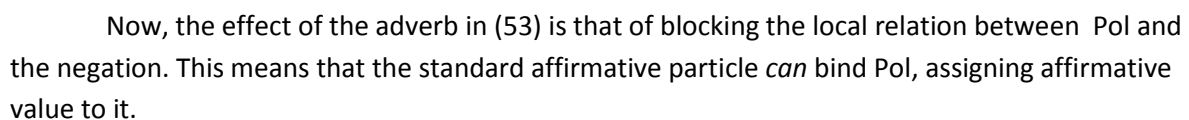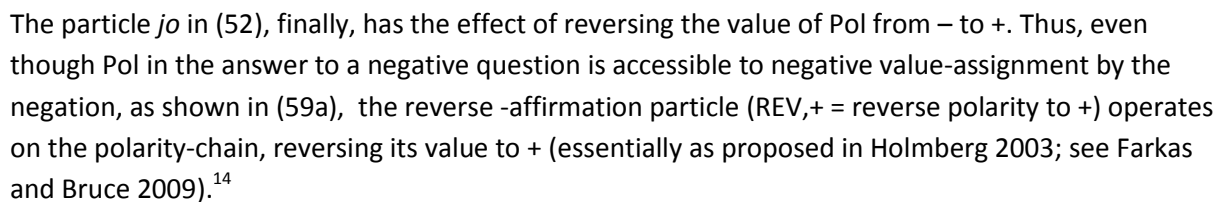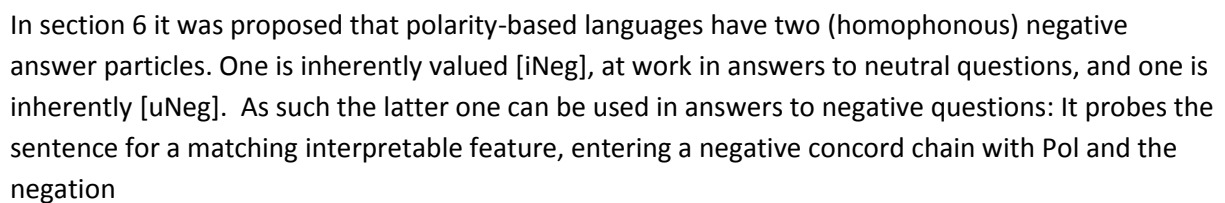
What Swedish has, is a negation word with sentential scope but a relatively low position, between T and vP (see Holmberg & Platzack 1995), thus a close counterpart to English sentential (middle) *not*, according to standard analyses; Pollock (1989, Haegeman (1995). So how come the adverb affects the reading of a negative question? The following is a proposal:

Swedish has a high negation, occurring in tandem with the sentential negation *inte* but without phonological representation. This is the head Pol, by hypothesis the highest head in the IP-domain of finite clauses, merged unvalued as [uPol], and receiving the value [−Pol] if it locally c-commands negation (see Holmberg 2003).

(56)   C [$_{PolP}$ DP [$_{Pol'}$ [[−Pol] [T   [inte vP ...]]]]]
                        ↑_____ [−Pol]

In declarative sentences without negation, Pol gets affirmative value by default. In YNQs it remains unvalued, being the question variable which is moved to specFocP, and is assigned affirmative or negative value in the corresponding answer, as discussed above. As a technical detail, this requires a delay in the value assignment to [uPol] in negative questions: It must not be the case that [uPol] is valued [−] by a probed negation immediately upon merger, as in that case negative YNQs could not

occur. Instead, the value assignment must wait until the entire CP is constructed, at which point [uPol] in a question is moved to spec,FocP, and (in direct questions) probed by Q, as described in section 5. I speculate that Pol is a universal category of finite clauses, encoding the polarity of the sentence. What varies is how it receives its value, and how this is morphologically expressed.

Taking (52) as our example, the problem with the affirmative particle *ja* is a feature clash with the negation of the elided IP/PolP. More formally, I assume that the problem is that [Pol] is assigned negative value by the negation, which means that the affirmation particle cannot bind it/assign a value to it. The problem in the answer *ja* in (52), shown in (57), is then that the sentence contains an operator which has no variable to bind, thus, in the last instance, causing a violation of Full Interpretation (Chomsky 1986, 1995).

(57)   [$_{FocP}$ Ja   FOC [$_{PolP}$ DP [$_{Pol'}$ [−Pol] [T [inte vP ...]]]]
           [+Pol]————————✕————↑ ↑————— [−Pol]

In section 6 it was proposed that polarity-based languages have two (homophonous) negative answer particles. One is inherently valued [iNeg], at work in answers to neutral questions, and one is inherently [uNeg]. As such the latter one can be used in answers to negative questions: It probes the sentence for a matching interpretable feature, entering a negative concord chain with Pol and the negation

(58)   [$_{FocP}$ Nej FOC [$_{PolP}$ DP [$_{Pol'}$ [−Pol] [T [inte vP ...]]]]
           [−Pol] ————————————┘ └———— [−Pol]

The particle *jo* in (52), finally, has the effect of reversing the value of Pol from − to +. Thus, even though Pol in the answer to a negative question is accessible to negative value-assignment by the negation, as shown in (59a), the reverse -affirmation particle (REV,+ = reverse polarity to +) operates on the polarity-chain, reversing its value to + (essentially as proposed in Holmberg 2003; see Farkas and Bruce 2009).[14]

(59)   a.   [$_{FocP}$ Jo FOC [$_{PolP}$ DP [$_{Pol'}$ [−Pol] [T [inte vP ...]]]]]
                    [REV,+]   └———— [−Pol]
         b.   [$_{FocP}$ Jo FOC [$_{PolP}$ DP [$_{Pol'}$ [+Pol] [T [inte vP ...]]]]]
                                                    └———— [+Pol]

Now, the effect of the adverb in (53) is that of blocking the local relation between Pol and the negation. This means that the standard affirmative particle *can* bind Pol, assigning affirmative value to it.

(60)   [$_{FocP}$ Ja FOC [$_{PolP}$ DP [$_{Pol'}$ [[+Pol] [T **ibland** [inte vP ...]]]]]
           [+Pol]————————————↑ ↑————✕——— [−Pol]

---

[14] Farkas and Bruce (2009) and Farkas and Roelofsen (2011) articulate a theory of answer particles which includes polarity-reversal as a component (the feature complex [REV,+] is taken over from their theory), but embedded in a theory which does not presuppose that answers are elliptical expressions.

(60) is the syntactic representation of the answer (53a). The negative particle in (53b) is the interpretable variety, assigning negative value to Pol. The result is double negation; there is one negative chain made up of *nej* and Pol, and one made up of the negation *inte*. This is indeed the reading of (53b), subject to the extra processing load of recovering the double negation.[15]

Why does the adverb have the blocking effect observed in (36-38), (49), (51), and (53)? Given what we know about 'relativized minimality' (Rizzi 1990) and 'intervention' (Broekhuis 2007, Sigurðsson and Holmberg 2008) it should be because the adverb itself enters a relation with Pol. The question is about the polarity of the adverb, as it were: 'sometimes' or 'not sometimes/ever' (in (53) and (36), 'once more' or 'not once more' in (37), and 'purposely' or 'not purposely' in (38). Formally, this could be encoded as an unvalued narrow-focus feature accompanying [uPol], which probes for the nearest focus-marked category, and where the negation as well as adverbs would have a matching valued focus feature inherently. This would be reminiscent of the analysis of the question particle in Finnish in Holmberg (to appear). I will leave this topic with these somewhat informal remarks. Fortunately, for the purposes of this paper it is not essential that we understand the semantic or syntactic basis for the intervention effect of the adverbs in negative YNQs. It is sufficient that we agree on the correctness of the observation.

Returning now to English, I assume that English, too, has a high Pol-head occurring in tandem with *not*. There are still two different homophonous negations *not*. Sentential *not* is structurally situated between T and vP, where it acquires sentential scope being probed by [uPol], just like *inte* in Swedish. The result is the middle negation readin. vP-*not* is adjoined to vP (or VP, in the absence of *v*). An obvious difference between English and Swedish is that the high Pol-head sometimes has overt form, in the shape of the clitic negation *–nt*, and as such follows along under Pol-movement to the C-domain, and even has the option of being externally merged in the C-domain (the case of Ladd's outer negation).

The adverb effect seen in (36-38), (49), and (51) is due to the adverb blocking the local relation between Pol and *not*, just as in the Swedish counterpart. The choice of negation, middle or low *not*, is not crucial (it cannot be, as Swedish only has the middle variety). The adverb can, apparently, be adjoined to NegP, thus intervening between sentential *not* and Pol, with the effect described in (36)-(38) (in English) and (53) in Swedish.

9. Some more predictions and complications

The effect of the low negation *not*, evidenced by the English double negative construction (39) (*You can't not go to Church, ...*), which Swedish does not have, is that it causes 'negative neutralization', i.e. it makes negative questions with *not* ambiguous between a reading where *not* has sentential scope and one where it has vP-scope. This, in turn, is reflected in the possibility of confirming the negation in such a question either by *no* (confirming sentential *not* by means of negative concord) or *yes* (confirming vP-*not*). The prediction is that there will be no corresponding negative neutralization

---

[15] The reverse-affirmative particle applied to the question in (53) is predicted to be ill-formed, if the particle can only operate on a negative-marked Pol reversing its value.

(i)   Q: Kom Johan ibland inte i tid?
                      'Did Johan sometimes not come on time?'
      A: ??Jo.

The judgment is complicated by the fact that this particle is, depending on dialect, also used as a standard affirmation particle. Ignoring this possibility, the prediction is right: The answer seems to have no computable meaning.

effect in Swedish. My own judgment as a native speaker of Swedish, with some verification from other speakers, is that this is the case, as shown in (61) (also (52)): The affirmative answer *ja* is just ill-formed, and does not appear to exhibit the option available in English of being interpreted as confirmation of the negation ('He has not come').

(61)   Q: Har Johan inte kommit?
               has Johan not come
       A: #Ja.

Another prediction is that *no* as answer to a negative question with *not* should be ambiguous in English.

(62)   Q: Will you not dress up for the party?
       A: No.

If the negation in the question can be analyzed as low *not*, then the answer should be interpretable as double negation, with interpretable *no* assigning negative value to [uPol], combining with vP-*not*. There is a question whether this is a possible reading. It could be that the simpler sentential-*not* reading blocks the double negation reading. However, note that the question in (62) can be answered as in (63) (as also noted by Kramer and Rawlins (2009), Farkas and Bruce (2009), Farkas and Roelofson (2011), and Krifka (2012)):

(63)   No, I will dress up.

We may now assume that this is made possible by the optional interpretation of *not* in the question as vP-*not*, with *I will dress up* as a spell-out of 'I will not not dress up'.[16] Again the prediction is that Swedish should not allow the counterpart to (63). On the basis of my own native intuitions with verification from a small number of other speakers, I believe that this is right (see (64)), but the question needs proper investigation.

(64)   Q: Ska du inte klä   upp dej   till festen?
               will you not dress up you-ACC to the.party
               'Will you not dress up for the party?'
       A: ??Nej, jag ska klä   upp mej.
                 no   I   will dress up   me
               Intended: 'No, I will dress up.'

I leave this matter for further research.

     A referee for *Lingua* points out that the following exchange is natural for them, where the answer means that John is coming. The context is that people are getting ready to leave, but John, expected to be among them, is not to be seen.

---

[16] See Krifka (2012) for an interesting alternative account of (63), based on the semantics of negative questions, not on analysis of answers as derived by ellipsis.

(65) Q: Is John not coming, then?
      A: Yes, he's just getting his jacket.

This is unexpected given the theory sketched so far, as I have claimed that *yes* as an answer to a negative question with *not* either confirms the negation or is a failed disconfirmation of the negation. Essentially the same observation as (65) was made by Thoms (2012) at a recent conference. It could be mentioned that the observation was not universally accepted, by the native English speakers at the conference. For those speakers who do accept it, I can see three possibilities:
(a)   The negation *not* in the question (65) can have Ladd's (1981) outer negation reading, like *n't*, being interpreted outside PolP. The effect would be that the ellipsis in the answer (taking the answer to have an elided PolP) would not include any negative feature, so *yes* would assign the usual affirmative value to Pol. The prediction is, in that case, that (66) would not be a well-formed discourse, as the NPI should exclude the outer negation reading.

(66) Q: Is John not coming either?
      A: Yes, he's just getting his jacket.

This appears right, but will need to be properly investigated.
 (b)   Y*es* can be used as a reverse-affirmative particle, perhaps subject to dialectal variation and perhaps subject to subtle lexical or prosodic cues (is *yeah* more natural than *yes* in (65)?). Since the referee reports that they agree with the judgment of (25), repeated here as (67), it does not appear to be the case that *yes* can always function as a reverse-affirmative particle for them.

(67)   John is not coming.
          a. #Yes.
           b.   Yes he is.

In Swedish, answering with the reverse-affirmative particle in the corresponding situation might be considered an unusually curt answer, but would be unambiguous, meaning that John is coming.
(c)   (65) is a case where *yes* is not construed with ellipsis. The theory articulated in the present paper is based on the hypothesis that yes and no-answers to YNQs are derived by ellipsis, and has discussed a variety of cases where this can explain observed form-meaning correspondences. This does not exclude the possibility that the words *yes* and *no* can have alternative uses (after all, we have already been forced to admit two varieties of *no*, one [iNeg] one [uNeg]). Obviously, admitting this possibility in the case of (65) threatens to undermine the theory articulated here. If (65) is not derived by ellipsis, the prediction is that bare *yes* in this context could not support the interpretation that John is coming, without the continuation providing a basis for the inference. Crucially, in the cases discussed earlier, including (5-9), (36-38), and (43), the interpretation of the answers does not depend on a particular continuation.
          I will leave this matter unresolved, with these remarks.

10.   **A piece of evidence of affirmative value in declaratives**
I have assumed that finite sentences have a head Pol(arity) which has one of three values, affirmative, negative, or open, where open is the value of (open) questions, which is fixed as either negative or affirmative in the reply. While no-one will deny that negative sentences have a

negatively valued element, which may or may not be universally a head (Haegeman 1995), it is much more controversial whether non-negative declarative sentences have a corresponding affirmative element (for example K&R assume that they do not). For one thing, the negative element is typically (or perhaps even always) morphologically expressed as a negative particle or inflection, but there is rarely any overt morphological evidence of an affirmative element (although, as discussed by Laka (1994), when focused, affirmation can be morphologically expressed). Another reason to doubt the existence of an affirmative element in non-negative declaratives is that it does not seem to induce any cross-over or island effects corresponding to the effects that the negation has. If there is an affirmative head in (54a), corresponding to the negative head in (54b), why does it not affect adjunct wh-movement the way the negation does?

(68)   a.   How did he say that he fixed the sink?
       b.   *?How didn't he say that he fixed the sink?

The alternative to assuming an affirmative syntactic head (or other constituent with an affirmative feature) is to assume that the affirmative reading is the default reading, in the absence of a negative-marked or question-marked head.

     Consider, however, the following observation:

(69)   John is coming.
       a.   Yes.
       b.   #No.
       c.   No he isn't.

This is a case of *yes* and *no* used as a response to a declarative (discussed above in the context of (25)). Why is the b-response not felicitous here? This is explained if the declarative has an affirmative feature, as in (70a). In order for PolP to be elided in the answer, this affirmative feature must be present in the PolP of the answer. But if it is, there is a feature clash with the negative feature of the focused negative particle.

(70)a.   [$_{PolP}$ John is+[Aff] [$_{TP}$ <is> [$_{VP}$ <John> coming]]]
      b.

             No   Foc   PolP
         [Neg]   DP
                 John   [Aff]   TP
                       is
                            is John coming
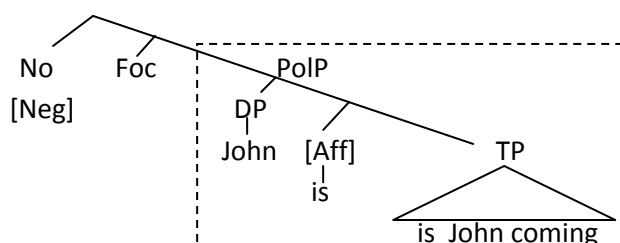
The counterpart (69a) is fine, because the affirmative particle does not clash with the affirmative feature of Pol. The counterpart (69c) is also fine, because in that case only TP is elided, so only TP needs to be identical to that of the preceding declarative. Pol can be merged unvalued, and be valued negative by the focused negative particle.

     This is, then, a piece of evidence that affirmation is a syntactic feature, on a par with negation. It is generally not morphologically expressed because the grammar makes use of the

option of expressing the opposition between two values as opposition between null and overt. Why affirmation does not induce island effects to the same extent as negation must have some other explanation. Note that under the theory expounded here negative sentences still have more structure than affirmative sentences: They have an overt negation particle assigning negative value to Pol, while the affirmative value is typically assigned by default.

11.　　Conclusions

It has been shown that the meaning of the answer, yes or no, to negative questions in English depends on the scope of negation in the question.　We have distinguished basically three cases.

(a)　　　Highest negation　(interpreted outside IP)
　　　　　Q:　　Isn't John coming (too)? (positive bias)
　　　　　A:　　Yes. ('John is coming.')
　　　　　A:　　No.　('John is not coming.')

 (b)　　　Middle negation (interpreted inside IP, but with sentential scope)
　　　　　Q: a.　Isn't John coming (either)? (negative bias; unacceptable for some speakers)
　　　　　　　b.　Is John not coming?
　　　　　A:　　#Yes.　(indeterminate/uninterpretable in this context)
　　　　　A:　　No.　('John is not coming.')

(c)　　　Low negation　(vP-scope)
　　　　　Q:　　Is John not coming?
　　　　　A:　　Yes. ('John is not coming.')
　　　　　A:　　No. ('John is not coming.')

When the low negation reading is blocked, by using *–n't* in the question, the reading where *yes* confirms the negation and *no* disconfirms the negation is not available. When the low reading is forced, by inserting a low adverb before the negation in the question, the reading where *yes* confirms the negation and *no* disconfirms the negation is the only one available. The negative neutralization in (c) (*yes* and *no* having the same meaning, observed by Kramer and Rawlins 2009, 2010) is the effect when the low negation reading is selected in the case of *yes*, and the middle reading in the case of *no*. In all the cases where the bare answer *yes* is infelicitous, addition of sentential material with VP-ellipsis is a well-formed alternative.

These facts are all explained under a theory where yes and no-answers are derived by ellipsis. The answer particles *yes* and *no* are operators in the spec of Focus of the C-domain, which assign a value, affirmative or negative, to the polarity variable which all yes/no-questions have, and which the answers inherit from the question. The IP (more precisely, PolP) is then usually elided (not spelled out in PF), under identity with the PolP of the question.　It will be a challenge for theories which do not assume any ellipsis in answers to yes/no-questions to account for these correspondences between the syntax of the question and the interpretation of the answer.

The facts discussed in this paper have interesting implications for the well-known distinction between the truth-based (or agreement/disagreement-based) and the polarity-based answering systems. In a sense English exhibits both systems, depending on the choice and interpretation of the negation in the question.　A negative question can be answered either *yes* or *no* to confirm the

negation (confirm the truth of the negative alternative). If we take the observation in (63) into account, according to which *no* can deny the negation in the question, then English really exhibits both systems. This suggests that the distinction between languages (reportedly) following the truth-based system and those following the polarity-based system may be a matter of differences in the syntax of negation in these languages, or perhaps specifically the interplay of the syntax of YNQs and the syntax of negation. I have opted for a hybrid theory in this paper, though, proposing (essentially as in Kramer and Rawlins 2009, 2010) that a property characteristic of the polarity-based system is that the negative answer particle can be (but obviously need not be) formally uninterpretable, receiving a value by entering a negative concord chain with an interpretable negation in PolP.

References
Broekhuis, H. 2007. Does Defective Intervention Exist? Linguistics in the Netherlands 2007, eds. B. Los and M. van Koppen, 49-61. John Benjamins, Amsterdam.

Chomsky, N. 1986. Knowledge of language. Praeger, New York.

Chomsky, N., 1995. The minimalist program. MIT Press, Cambridge MA.

Chomsky, N. 2001. Derivation by phase. In: Kenstowicz, M. (Ed.), Ken Hale: a life in language. MIT Press, Cambridge MA, pp. 1-53.

Cinque, G., 1999. Adverbs and functional heads. A crosslinguistic perspective. Oxford University Press, New York.

Farkas, D., Bruce, K., 2011. On reacting to assertions and polar questions. Journal of Semantics 27, 81-118.

Farkas, D. & F. Roelofson. 2011. Polarity particles in an inquisitive discourse model. Handout.

Haegeman, L., 1995. The Syntax of Negation. Cambridge University Press, Cambridge.

Haegeman, L. and Lohndahl, T. 2010. Negative concord and multiple agree: A case study of West-Flemish. Linguistic Inquiry 41, 181-211.

Holmberg, A., 2001. The syntax of yes and no in Finnish. Studia Linguistica 55, 141-174.

Holmberg, A. 2003. Yes/no questions and the relation between tense and polarity in English and Finnish. In: Pica, P. (Ed.) Linguistic Variation Yearbook 3, 43-68

Holmberg, A. 2007. Null subjects and polarity focus. Studia Linguistica 61, 212-236.

Holmberg, A. To appear. The syntax of the question particle in Finnish. In: Svenonius, P. (Ed.) Functional structure from top to toe. Oxford University Press, Oxford and New York.

Holmberg, A., Platzack, C., 1995. The role of inflection in Scandinavian syntax. Oxford University Press, New York.

Krifka, M. 2012. Negated polarity questions as denegations of assertions. Ms., Humboldt-Universität Berlin, Zentrum für Allgemeine Sprachwissenschaft.

Martins, A.M., 1994. Enclisis, VP-deletion and the nature of Sigma. Probus 6, 173-205.

Merchant, J., 2001. The Syntax of Silence. Oxford University Press, Oxford.

Kramer, R., Rawlins, K., 2009. Polarity particles: an ellipsis account. To appear in: *The Proceedings of the 39th Annual Meeting of the North East Linguistic Society* (*NELS* 39).

Kramer, R., Rawlins,K., 2010. Polarity particles and ellipsis: a (somewhat) cross-linguistic perspective. Handout from Polarity particles workshop, Jan 2010.

Kramer, R. and K. Rawlins. 2012. An ellipsis approach to answer particles in positive and negative contexts. Paper presented at 'Workshop on the Syntax of Answers to Polar Questions', Newcastle University, June 2012.

Kuno, S. 1973. *The structure of the Japanese language*. MIT Press, Cambridge MA.

Ladd, D.R., 1981. A first look at the semantics and pragmatics of negative questions and tag questions. Proceedings of Chicago Linguistic Society, Vol 17: 164-171

Laka, I., 1994. *On the Syntax of Negation*. Garland, New York.

Miyagawa, S., 2010. *Why Agree? Why Move?* MIT Press, Cambridige MA.

Morris-Jones, B., 1999. *The Welsh Answering System*. Mouton de Gruyter, Berlin/New York.

Pollock, J-Y. 1989. Verb movement, Universal Grammar and the structure of IP. Linguistic Inquiry 20: 365-424.

Rizzi, L. 1990. Relatiivized minimality. MIT Press, Cambridge MA.

Rooth, M. 1992. A theory of focus interpretation. Natural Language Semantics 1, 75-116.

Sigurðsson, H. and A. Holmberg. 2008. Icelandic dative intervention: person and number are separate probes. In: d'Alessandro, R., G. Hrafnbjargarson and S. Fischer (Eds.) Agreement restrictions, 251-80. Mouton de Gruyter, Berlin.

Thoms, G. 2012. Yes and no, merge and move, ellipsis and parallelism. Paper presented at the Workshop on the Syntax of Answers to Polar Questions, Newcastle University.

Wallage, P., Wurff, W. van der, to appear. On saying YES in early Anglo-Saxon England. To appear in Anglo-Saxon England.

Williams, E. 1977. Discourse and Logical Form. Linguistic Inquiry 8, 101-139.

Zeijstra, H. 2004. Sentential negation and negative concord. PhD dissertation. UiLOTS.