

Negation and Comp

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The main argument in this paper is that negation generated within the local IP differs substantially from negation outside of this IP (whether or not within the local CP), not only with respect to its contribution to the truth-value of the local clause, but also with respect to the syntactic processes such as polarity licensing. That negation in a superordinate clause will behave differently from negation in the local clause, is hardly controversial. Therefore, the decisive data to consider will be negation outside the local IP, but within the local CP, basically, negation in Comp.

Suppose that negative placement/interpretation respects minimality, the way minimality is respected in the other modules. Since Infl (or one of its split parts) is the canonical position for negation, the first maximal projection that dominates it, i.e. IP, will count as a "complete functional domain" for negation. Within IP, negation will exert its full influence on the truth-value of the sentence, as well as on negative polarity (NPI) licensing and positive polarity (PPI) anti-licensing. Outside of IP, just like outside of the clause, negation loses its full force, and its effect will be comparable to the effect of superordinate negation, all other things being equal.

The consequences of this claim can be far-reaching. As far as truth-conditions are concerned, it will be possible for negation to sit in Comp without rendering the complement clause negative. As for polarity, negation in Comp will only exert as much influence on polarity items as superordinate negation. Crosslinguistic evidence involving overt negation in Comp supports these predictions in many unrelated languages, of which I will discuss English, Serbian/Croatian, Latin, and Turkish.

On a more controversial side, I will also explore the possibility that non-overt Comp operators that have been taken to license negative polarity items are actually negative. If true, this would reduce all NPI licensors to negation only. It would also significantly reduce the number of possible operators in Comp.*

* I am grateful to many people for helpful discussions on most of the issues addressed in this paper, among whom I would especially like to thank Joseph Aoun, Marc Authier, Liliane Haegeman, Richard Kayne, and Martha Ratliff.

1. Basic polarity facts in negative clauses.

1.1. Local negation.

Languages differ little, if at all, with respect to polarity licensing with clausemate (local) negation in Infl (or some of its split parts, see Pollock 1989). Thus (at least one type of) Negative Polarity Items (NPIs) are invariably licensed, and Positive Polarity Items (PPIs) are invariably illicit, in the scope of a local negation, as illustrated below for English and Serbian/Croatian¹:

- (1) John did not insult *anyone*
- (2) #John did not insult *someone*. (#: only wide scope of the PPI (*someone*) possible)
- (3) Jovan nije *nikoga* uvredio²
John not-is no-one insulted

¹ In order to be sensitive to the new terminological developments, I will refer to my native language as Serbian/Croatian, rather than Serbo-Croatian, as was traditionally the practice. Since the gradual break up of the Socialist Federal Republic of Yugoslavia during the past few years, Croatia has referred to the language as Croatian, while the remaining part of Yugoslavia, consisting of Serbia and Montenegro, has referred to the language as either Serbian or Serbo-Croatian. All the judgements relevant for the discussion in this paper work the same way for both variants. I am grateful to Zvezdana Vizić for her patient judgements on the Croatian variant.

² The unmarked word order in Serbian/Croatian is as in English, SVO. However, 'light' (i.e. non-heavy) QPs (quantifier phrases) tend to precede the verb, whether polarity items or not. The example (3) might at first sight seem to provide support for Zanuttini's (1991) claim that n-words (negative words) raise to the specifier of NegP, and by Spec/Head agreement result in a single-interpretation of negative-concord. She argues that this raising applies in LF for Italian and other Romance languages, but it would seem that it takes place already at S-Structure in Serbian/Croatian. This would be consistent with the fact that Serbian/Croatian also raises all wh-phrases in multiple questions to the front (see Rudin 1988 and Progovac 1994; see also Pesetsky 1987 for Polish). However, this analysis would be too strong since all light QPs, not just n-words, raise to a preverbal position in Serbian/Croatian, including PPIs (as in (4) in the text), non-negated NPIs (as in (ii)), and universal quantifiers (as in (iv)). (i) illustrates that the unmarked order for non-QP objects is SVO. On the other hand, (ii) through (iv) show that the unmarked order with QP objects is SOV, whether or not they are negative items.

Non-QPs: unmarked SVO

- (i) a. Jovan ne voli Petra
John not likes Peter-ACC
'John doesn't like Peter'
- b. ?Jovan Petra ne voli. ('Petra': old information/emphasis)

QPs: unmarked SOV

- (ii) a. Jovan [VP *nikoga* [VP ne voli ti]]
John noone-ACC not likes
'John likes no one'
b. ?Jovan ne voli *nikoga* (emphasis)
Milan ne tvrdi [CP da Jovan [VP *ikoga* [VP voli ti]]]
Milan not claims that John anyone likes
'Milan does not claim that John likes anyone'
- (iv) a. ?Milan ne tvrdi da Jovan voli *ikoga* (emphasis)
John *svakoga* voli
John everybody-ACC likes
'John likes everybody'
b. ?Jovan voli *svakoga* (emphasis)

- (4) #Jovan nije *nekoga* uvredio
John not-is someone insulted

At various places I argued that these facts follow from the assumptions that NPIs are anaphoric elements, subject to Principle A, whereas PPIs are pronominal in nature, and are subject to Principle B of the Binding Theory (see Progovac 1988, 1991, 1993, 1994). The typical binder for polarity items is negation, whereas the local IP is their governing category, since it is the first maximal projection which contains the first potential binder (SUBJECT) for polarity items, i.e. negation in Infl (or in some of its split parts).

1.2. Superordinate negation.

Almost invariably³ Positive Polarity Items (PPIs) are licit in the scope of a higher negation. This follows directly from the assumption that they are subject to Principle B: superordinate negation falls outside of the governing category for polarity items. The following examples from English and Serbian/Croatian illustrate this:

- (5) John did not say [CP that Peter insulted *someone*]
- (6) Jovan ne kaze [da je Petar *nekoga* uvredio]
John not says that has Peter someone insulted

While English uses the same type of NPI that appears with clausemate negation (cf. (1) and (7)), a different NPI is used in the scope of a superordinate negation in Serbian/Croatian, compare *n-i-koga* (=neg-any-whom) in (3), which I call a NI-NPI, to *i-koga* (=any-whom) in (8), which I call an I-NPI.⁴

- (7) John did not say [that Peter insulted *anyone*]

³ PPIs in Russian necessarily take wide scope with respect to any polarity operator in the sentence, including superordinate negation and non-overt operators in Comp (see Brown 1989). This behavior would follow from the assumption that such items are subject to Principle C of the binding theory.

⁴ As suggested to me by Liliane Haegeman, the contrast between *nikoga* and *ikoga* may support the view that clauses contain a Pol(arity)P(hrase), which is neutral with respect to the truth value, unless somehow marked negative. This way, the negative item *nikoga* would presumably raise to the spec position of the PolP and mark its head negative by spec/head agreement. While this approach can explain the facts associated with *nikoga*, it would still leave unexplained the necessity for negation in the higher clause with *ikoga*, in case there is no polarity operator in Comp. The question is basically why *ikoga*, although not negative, forces the presence of negation in a higher clause. Although the contrast between the two NPIs in Serbian/Croatian does not necessarily make a case for a PolP, I believe that generating a PolP in every clause is superior to having a NegP only in negative clauses.

- (8) Jovan ne kaze [da je Petar *ikoga* uvredio]
John not says that has Peter anyone insulted

It is also obvious that superordinate negation does not make the local sentence negative, with a possible exception of neg-raising constructions of the type:

- (9) I do not_i think [CP that Peter is t_i honest]

But if these are really instances of Neg-raising (cf. Horn 1978), then negation originates in the local clause, and it is presumably the trace of negation that renders the clause negative. Instances of Neg-Preposing in English (10) and West Flemish (11), from Haegeman & Zanuttini (1991), would receive the same explanation:

- (10) [CP [To no charity]_i] [_C will [_{IP} John give money t_i again]]]
(11) niemand en ee Valere gezien
no-one NEG has Valere seen
'Valère saw noone'

The negative phrase moves to the Spec of CP, leaving a trace in the local IP. The negative trace then is responsible for the negative reading of the local clause.

2. Licensing from Comp.

It has been argued and/or assumed by many that NPI licensing in interrogatives and conditionals is achieved through some covert operator in Comp (see Katz & Postal 1964 and Baker 1970 for Q operator, and Progovac 1988 for negative operator). Progovac (1988, 1992, 1994) and Laka (1990) argue that adversative predicates also select a negative operator in the embedded Comp, and that licensing of NPIs is achieved via this operator.

Whatever the nature of the operator, both in English and Serbian/Croatian, licensing from Comp patterns with licensing by negation from a superordinate clause. There are two pieces of evidence that lead to this conclusion: choice of NPIs in Serbian/Croatian and distribution of PPIs in both English and Serbian/Croatian.

2.1. Choice of NPIs in Serbian/Croatian.

In non-negative polarity contexts, only I-NPIs are licensed, and never NI-NPIs. Recall that this is true of licensing by superordinate negation, as opposed to licensing by clausemate negation (section 1):⁵

Yes/no questions:

- (12) da li Milan voli *iko-ga* / **niko-ga*?
that Q Milan loves anyone-ACC / no-one-ACC
'does Milan love anyone?'

Conditionals:

- (13) ako Milan povredi *iko-ga* / **niko-ga*, bi-Ée kaznjen
if Milan hurts anyone-ACC / no-one-ACC be-FUT punished
'If Milan hurts anyone, he will be punished'

Adversative predicates:

- (14) sumnja-m da Milan voli *iko-ga* / **niko-ga*.
doubt-1SG that Milan loves anyone-ACC / no-one-ACC
'I doubt that Milan loves anyone'

2.2. Positive Polarity Items (PPIs).

In non-negative polarity environments, both English and Serbian/Croatian PPIs can take narrow-scope with respect to the operator in Comp, further supporting the generalization that Comp licensing patterns with licensing by superordinate negation. Recall from section 1 that PPIs are licit in the scope of superordinate negation, but not in the scope of the clausemate negation. Here are the relevant examples from English and Serbian/Croatian:

Yes/No Questions

- (15) has John insulted *someone*?

- (16) da li je Jovan *nekoga* uvredio?
that Q is John someone insulted

Conditionals:

- (17) if John has insulted *someone*, he should apologize
(18) ako je Jovan *nekoga* uvredio, treba da se izvini
if is John someone insulted ought that self apologize

⁵ There are two possibilities to capture the distribution of I-NPIs. One is to say that they are subject to Principle B at S-structure, and to Principle A at LF, explaining why they must be free from negation in the local clause, but bound by negation elsewhere (see Progovac 1988, 1991, 1993). Another possibility is to argue that I-NPIs are bound pronouns, subject to Principle B, but with a requirement to be bound in the sentence (see Progovac 1994). I will not try to decide between the two alternatives here since nothing in the paper hinges on this decision.

Adversative predicates:

- (19) I doubt that John has insulted *someone*
- (20) sumnja-m da je Jovan nekoga uvredio
doubt-1SG that is John someone insulted

3. The nature of Operator in Comp.

3.1. The proposal.

The generalization in section 2 requires an explanation: why is it the case that licensing from Comp patterns with licensing from a superordinate clause? It is widely assumed that Comp in all non-negative polarity environments hosts some null operator (Op), which is capable of licensing NPIs:



From here, there are two possible routes to take. First, the operator in Comp may be substantially different from negation, explaining why its behavior is different from that of clausemate negation (see section 2). However, we would now be missing an important fact that Operator in Comp behaves in the same way as superordinate negation. In addition, we would not be able to unify licensing in overtly negative and in (what appear to be) non-negative contexts.

Instead I will explore the following strong claim: the polarity operator is negative, i.e. it is basically non-distinct from negation (as I argued in Progovac 1988). If true, this claim would reduce all NPI licensers to negation only. Instantly, however, we would raise the following questions: (i) if negative, why doesn't the operator in Comp reverse the truth-value of its clause, and (ii) why does it behave differently from clausemate negation with respect to polarity phenomena?⁶ In order to be theoretically interesting, the answer to both questions should be one and the same.

The importance of minimality has been recognized in almost all the modules of grammar: movement and government, as in Chomsky (1986a) and Rizzi (1990), and binding in the form of the SUBJECT (or the first potential antecedent). Suppose that minimality is also relevant

⁶ I assume here that Op is base generated in Comp. As pointed out by Liliane Haegeman, it is also possible for negation to move into Comp, as in English (10) in the text. Although in Comp, the negative phrase renders the local IP negative. This is, of course, because of the negative trace left within the local IP.

in the placement of negation. Since Infl (or one of its split parts) is the canonical position for negation, the first maximal projection that dominates it, i.e. IP, will count as a "complete functional domain" for negation, in the sense of Chomsky (1986b). Within IP, negation will exert its complete influence on the truth-value of the sentence, as well as on NPI licensing and PPI anti-licensing. Outside of IP, just like outside of the clause, negation loses its full force, and its effect will be comparable to the effect of superordinate negation.

The claim that null Comp operators are negative is theoretically appealing since it unifies the class of polarity operators, but is it empirically justifiable to say that negation in Comp does not render the clause negative, or license local NPIs? In fact, crosslinguistically, whenever overt negation is generated in Comp, it behaves exactly that way. This is illustrated below by examples with adversative predicates and *yes/no* questions.⁷

3.2. Overt negation with adversative predicates.⁸

As shown in Laka (1990), in Basque, main-clause verbs which license NPIs in their complements must select the negative complementizer *enik*:

- (22) Amaiak [inork gorrotoa dio-nik] ukatu du
Amaia anyone hatred has-that-NEG denied has
'Amaia denied that anybody hated her'

As evident from the translation above, negation in Comp does not make the local clause negative.

Also, as Irene Heim pointed out to me, Latin verbs of fearing select a negative particle in the embedded Comp, but the embedded clause is not interpreted as negative (from Allen and Greenough 1983, 365):

- (23) time-ō nē Verrēs fecerit ...
fear-1SG NEG Verres has-done
'I fear that Verres has done ...'

⁷ Liliane Haegeman also informs me that in West Flemish (see (i)) and in Dutch (see (ii)) there is a conditional "conjunction" which historically derives from a negative sentence, perhaps comparable to *unless* in English:

- (i) t-en woare da ze ziek was
it en were-SUBJ that she ill^f were
'unless she were ill'
- (ii) t-en-zij ze ziek is
it en be-SUBJ she ill is
'unless she is ill'

⁸ The group of adversative predicates includes verbs and adjectives such as *doubt*, *deny*, *refuse*, *stupid*, *surprise*, etc., which are usually felt to be 'inherently negative'.

The authors actually advise to translate *nē* as *that*.

In English, too, pre-IP negation does not render the IP negative:⁹

- (24) Mary failed the exam, *not* because [IP she was under-prepared], but because she was tired

While it is not clear where exactly the negative particle *not* is in (24), it is obvious that it is in a pre-IP position. As we would predict, the IP it precedes is not interpreted as negative, i.e., from (24) we can conclude neither (25) nor (26):

(25) Mary was not under-prepared

(26) Mary was under-prepared

This indeterminacy of the truth value is a recurring characteristic of negation in a pre-IP position, including Comp positions.

3.3. Overt negation in yes/no questions.

Similarly, an overt negative particle *me* obligatorily appears in Turkish embedded yes/no questions (Enç 1988):

(27) Ali [Fatma-nin gel-ip gel-me-di-gini] biliyor

Ali Fatma-NOM come-and come-not-PAST knows

'Ali knows whether or not Fatma came'

The question particle in Turkish main questions has the same stem as negation, *m*, and it is highly probable that it is negative, too:

(28) Ali hiç kimse-yi gör-me-di

Ali any person-ACC see-not-PAST

'Ali did not see anyone'

⁹ Martha Ratliff, personal communication, points out to me that there are speakers of English who accept negative gerund complements to some adversative predicates, on a single negation reading, as in:

- (i) I miss *not* having John around
I miss having John around

That this is not just an instance of negation doubling, or using negation for emphasis, is confirmed by the ungrammaticality of the following example in the same dialect:

- (ii) *I miss having *no* people around
I miss having people around

I will have to leave this issue for future investigation, though, since the status of Comp in gerund complements is rather controversial.

(29) Ali Fatma-yi gör-dü mü?

Ali Fatma-ACC see-PAST?

'did Ali see Fatma?'

In neither case does the negative question particle render the clause negative.

Neutral *yes/no* questions are formed in Serbian/Croatian in two ways, either with the question clitic *li* attaching to the complementizer *da*, or *li* attaching to the verb in Comp:

(30) *da li* Marija zna Jovan-a?
that Q Mary knows John-ACC
'does Mary know John?'

(31) *zna li* Marija Jovan-a?
knows Q Mary John-ACC
'does Mary know John?'

They are neutral (non-negative) questions and license the distant type of NPIs (see section 2).

A negative question is introduced with a different complementizer, *zar*, and hosts negation in Infl:

(32) *zar* Marija ne zna Jovan-a?
Q Mary not knows John-ACC
'is it true/possible that Mary doesn't know John?'

Like any other clause with negation in Infl, these questions license local NPIs:

(33) *zar* Marija ne zna *niko-ga* /**iko-ga*?
Q Mary not knows no-one-ACC/anyone-ACC
'is it true/possible that Mary doesn't know anyone?'

So far these questions behave as predicted both with respect to the assignment of the truth-value and the polarity phenomena.

There is another way to form negative *yes/no* questions in Serbian/Croatian, perhaps somewhat restricted and marked:

- (34) *ne poznaje li Marija možda Jovan-a?*¹⁰
 not knows Q Mary perhaps John-ACC
 'does Mary know John, by some chance?'

Since in (34) negation and the verb precede the subject and the question particle *li*, they must be in, or higher than, Comp. Although both (33) and (34) involve an overt negative particle *ne*, they differ both in interpretation and NPI licensing. While in (33) the predicate *know* is negated, it is not in (34). While (33) type questions license local NI-NPIs, as illustrated in (35), (34) type questions only license distant I-NPIs, as illustrated in (36) and (37):

- (35) *zar *iko/niko od vas ne zna kako se to radi?*
 Q anyone of you not knows how self that does
 'is it possible that none of you knows how to do it?'
- (36) *ne zna li iko/*niko od vas kako se to radi?*
 not knows Q anyone of you how self that works
 'does any of you know how to do it, by any chance?'
- (37) *ne zna li Marija ?i šta/*ni šta o Jovanu?*
 not knows Q Mary anything/nothing about John
 'does Mary know anything about John by any chance?'

This follows directly from our assumption that NI-NPIs can only be licensed by negation within the local IP, but not by superordinate negation, or Operator in Comp, whether negative or not.

We also rightly predict that PPIs will be licensed with the former, but not with the latter type of questions:

- (38) *ne zna li Marija nešto o Jovanu?*
 not knows Q Mary something about John
 'does Mary know something about John by any chance?'
- (39) *#zar Marija ne zna nešto o Jovanu?*
 Q Mary not knows something about John
 'is it possible that Mary does not know something about John?'

¹⁰ There is yet another possibility to form a question with negation in Comp, by leaving (adjoining) the negative verb directly to the complementizer, as in (i). Questions like these behave in exactly the same way as the ones discussed in the text, i.e., they license the distant type of NPI and are not interpreted as negative questions, as obvious from the translation:

- (i) *da ne zna Marija Jovana?*
 that not knows Mary John
 'does Mary know John, by some chance?'

The reason I am using the ones with the question particle *li* is because there is no doubt that negation in these sits in Comp (or higher).

3.4. The discussion.

The significance of the data presented so far is twofold. First of all, they show that the determining factor in both NPI licensing and the impact on the truth value of the clause is the position of the negative operator. Second, if this is really true, it becomes possible to unify operator licensing with negation licensing, thus reducing polarity licensing to negation only. In other words, it is possible to argue that negation can either be in Infl (or in some other position within IP), in which case the clause receives negative interpretation, or negation can sit in Comp, in which case the truth value of the clause is only indeterminate.

One striking similarity is shared by all the non-negative polarity clauses: none of them has its truth value fixed positively. For example, *yes/no* questions allow for either a negative or an affirmative answer, as in (40). Antecedents of conditionals are not committed to the positive outcome, as in (41). If (43) is the underlying representation for the corresponding comparative sentence in (42), then it is obvious that the comparative complement also has an indeterminate truth-value, i.e., one is not committed to either Bill being tall, or not tall:

- (40) Op Did Mary visit you yesterday?
 (41) Op If Mary comes, we'll let you know
 (42) Mary is taller than Bill
 (43) Mary is taller [CP Op than [IP Bill is tall]]

Recall that the same situation arises with overt negation in a pre-IP position, as in (24). Both overt negation in a pre-IP position and polarity operator in Comp select a complement clause with an indeterminate truth-value. From this it follows that Op itself may be negative, without distorting the semantics of its complement.

4. Unification by Downward Entailment.

Another possible way to unify NPI licensing in negative and non-overtly negative contexts would be to assume with Ladusaw (1980, 1982, 1983) that NPIs are licensed by DE (Downward Entailing) operators. On Ladusaw's DE approach, a polarity item is licensed if and only if in the scope of a DE operator, e.g. negation, conditional, adversative predicate, etc. In the scope of a DE operator the direction of entailment is from supersets (a *vegetable* below) to subsets (*kale*):

- (44) Mary did not eat a vegetable
 (45) Mary did not eat kale

This would still leave *yes/no* questions unexplained. As Ladusaw(1980) himself points out, *yes/no* questions are not DE, yet they license NPIs:

- (46) did Mary eat a green vegetable? yes
- (47) did Mary eat brussels sprouts? yes
- (48) did Mary eat *anything*?

Ladusaw assumes that this is so because *yes/no* questions are compatible with both positive and negative answers, so that basically anything is possible in questions. However, this cannot be the whole truth, as evidenced in the following contrast:

- (49) *Mary ate *anything*?
- (50) did Mary eat *anything*?

Although both examples involve questions, only the latter licenses NPIs. Notice that the following intonation question without an NPI is fully acceptable:

- (51) Mary ate her lunch?

This fact suggests that a formal licenser (operator) for NPIs is indeed necessary even in questions. If it is there, it will trigger inversion, as in (50).

Given my approach, one can assume that Op is licensed either by unfixed truth conditions in unselected contexts (questions, conditionals, etc.), or takes the form of a negative feature projected by certain inherently negative verbs and prepositions (e.g. *doubt, forget, without*).

Notice that the binding approach to polarity sensitivity allows us to capture the fact that NPIs and PPIs are not always in complementary distribution in a principled way. This is a considerable advantage over Ladusaw's analysis, which stipulates that PPIs are disallowed only by clausemate negation, and not by the whole set of downward entailing expressions which license NPIs. Given this analysis, which recognizes locality requirements, it can be maintained that all the NPI licensers are also PPI anti-licensers.

5. Licenser in Comp.

At various places I have argued that non-negative licensers must indeed reside in Comp (see Progovac 1988, 1992, 1993). The argument is based on a cross-linguistic fact that a negative operator can license an NPI only in its sentential, as opposed to phrasal, complement. Since

phrases are not headed by a Comp projection, they may not host a negative operator in Comp:

- (52) John *forgot* [_{CP} that Mary brought *anything*]
- (53) *John *forgot* [_{NP} *anything*]

Phrasal/clausal asymmetries of the type illustrated above are evidenced not only for adversative predicates, but also for NPI licensing in comparatives, with universal quantifiers, and with negative prepositions. For details, the reader is referred to the sources quoted above.

There is yet another curious asymmetry that provides indirect support for the claim that adversative predicates select a negative Comp. It is generally assumed that ECM (Exceptional Case Marking) complements cannot host a Comp position (see Chomsky 1981).¹¹ This is because an intervening Comp would prevent exceptional case assignment to the embedded subject:

- (54) John believes [_{IP} Peter to be a fool]

If the claim is correct that adversative predicates select an operator in Comp, we predict that there will be no adversative predicates that can assign exceptional case. This seems to be confirmed in the following minimal contrasts involving adversative predicates and their non-adversative counterparts:

- (55) ?*John doubts [Peter/anyone to be a fool]
- (56) John believes [Peter to be a fool]
- (57) ?*John denied [Mary/anyone to be the best candidate]
- (58) John affirmed [Mary to be the best candidate]

Examples (55) through (58) also show that a negative Operator/feature must be realized in the Comp position, rather than in some position lower than IP. If a negative feature could be realized on the head of the complement, in this case on Infl (see Laka 1990), there would be no reason for the existence of the adversative/non-adversative contrasts exemplified above.

¹¹ However, as pointed out to me by Liliane Haegeman, examples below pose a problem for such a characterization of ECM:

- (i) which pictures of himself does John expect Mary to buy?
- (ii) which pictures of himself did John consider Mary too proud of?

I have no explanation for these cases which seem to involve reconstruction to the embedded Comp.

6. Rhetorical questions.

Perhaps the strongest argument for the claim that there is a negative operator in the Comp of questions comes from rhetorical *wh*-questions:

- (59) who did Mary ever kiss at the first date?
 (60) when did Mary give a present to anyone?

What is peculiar about the above examples is that the *wh*-words no longer range over different possibilities, but rather imply an empty set. (59) and (60) can be respectively paraphrased as negative (61) and (62):

- (61) Mary kissed *no one* at the first date, did she?
 (62) *never* did Mary give a present to anyone, did she?

Informally speaking, *who* is interpreted as *no one*, and *when* as *never*. What can be responsible for this curious fact?

One can attempt a pragmatic explanation, and say that a negative polarity item somehow creates a preference for a negative interpretation, as it would in a yes/no question, contrast (63) to (64):¹²

- (63) did Mary give a present to anyone?
 (64) did Mary give a present to someone?

¹² My analysis predicts correctly that NPIs in yes/no questions would not induce obligatory rhetorical readings. This is so because there is no conflict of features in the Comp position. Whatever operator in Comp is responsible for NPI licensing will also be responsible for the interrogative interpretation. My view is that this operator is actually negative, but other possibilities are not excluded.

However, as pointed out in Sedivy (1990), yes/no questions with idiomatic NPIs in them (i) do induce obligatory rhetorical interpretation, as in (ii):

- (i) did Mary *budge an inch* to help her sister?
 (ii) Mary did not *budge an inch* to help her sister

I assume that this difference follows from the idiomatic nature of these NPIs. Suppose that they are not real NPIs, but rather idioms that are listed in the lexicon with negation, in the following way:

- (iii) neg-budge-an-inch

Since idioms must satisfy their lexical properties in the local IP (see e.g. Radford 1988), idiomatic NPIs can only appear with local negation. When they appear in questions, in order to be licit, an IP internal negation must be activated, giving rise to a negative reading. Suppose that this is only possible if there is a negative operator in Comp, which makes the truth value of the clause indeterminate. No such possibility will be open for positive sentences, since the absence of a negative operator in Comp commits the clause to a positive truth-value:

- (iv) *John *budged an inch*

In support of this analysis, notice that idiomatic NPIs behave uniformly across languages (see Sedivy 1990), whereas the licensing of regular NPIs may vary considerably from language to language (see Progovac 1988, 1994). The issue, however, deserves further investigation.

It is true that a yes/no question with an NPI is more likely interpreted as involving a negative expectation on the part of the speaker. However, there is an important difference between (59) and (60), on the one hand, and (63), on the other. While in (63) we are dealing with a preference, which might as well be pragmatic, in (59) and (60) we are dealing with a necessity. In other words, a combination which involves a *wh*-word and an NPI must necessarily be interpreted as negative, and this necessity cannot follow from pragmatic principles.

Our analysis actually predicts a conflict in *wh*-questions with NPIs, which is then responsible for the special reading assigned to such questions. Both Op and *wh*-phrases have to be in Comp, resulting in a conflict of features. It is widely assumed that *wh*-phrases in the Spec of CP trigger Spec/Head agreement in the head of CP (see Chomsky 1986a, Rizzi 1990, and Schneider-Zioga 1987 for overt agreement in Comp). Thus the polarity operator and *wh*-agreement will compete for the placement in Comp. One way to resolve the conflict would be to suppress the polarity operator, but this would leave the NPIs without a licenser, and the question ungrammatical. Another way would be to suppress *wh*-agreement. This would result in the loss of *wh*-force in such questions, assuming that *wh*-force must be realized in the head of Comp.

The question now reduces to the following: what can a *wh*-phrase be, once it loses its *wh*-force? It is cross-linguistically true that *wh*-phrases can serve as NPIs, as illustrated below for Chinese and Serbian/Croatian:

- (65) ni xiang chi *sheme* ma?
 you like eat what Q
 'would you like to eat anything?'
 (66) da li je Milan i-*šta* doneo?
 that Q has Milan any-what brought
 'has Milan brought anything?'

Thus, in order to salvage the construction, English resorts to a UG-recognized strategy (although not an English-specific one) of treating a *wh*-word as a general variable which can be bound either by negation (NPI) or by a question operator (*wh*-word). From (67) below we derive (68):

- (67) [CP *when* [C' Op did Mary give a present to anyone]]?
 (68) [CP *ever* [C' Op did Mary give a present to anyone]]?

Even given this much, we still do not know where the negative interpretation comes from. The only way to derive the fact would be to assume that Op in Comp is negative. If so, by Spec/Head agreement in

Comp, the NPI in Spec of CP will acquire a negative feature and yield (69):

(69) [CP Neg-ever [C Neg-Op did Mary give a present to anyone]]?

This will now be spelled out as (70), which is exactly the interpretation of the rhetorical question in (60):¹³

(70) [CP *never* [C did Mary give a present to anyone]]

7. Conclusion.

In conclusion, the effect of negation on the clause in which it appears will depend on its position in that clause. Only negation within the local IP will exert its full influence on the clause, both semantically and syntactically. Semantically, an IP internal negation will render the clause negative. Syntactically, it will license local NPIs, and anti-license PPIs. Negation in Comp (or another pre IP-position) will only have an indirect influence on the complement IP. Semantically, it will render the truth-value of that clause indeterminate, i.e. neither positive nor negative. Syntactically, it will not anti-license PPIs, and will only license distant (non-local) NPIs. This syntactic effect is similar to that of a superordinate negation, i.e. negation in a higher clause. I take these differences between IP-internal and IP-external negation to follow from the minimality considerations. Since negation is canonically generated in one of the IP-internal functional projections (Infl or NegP), IP is a complete functional domain (or governing category) for negation. The effect of negation outside of this local IP becomes comparable to that of negation in a superordinate clause, since in both cases we are dealing with negation outside of the minimal domain.

The conclusions above are both theoretically desirable and empirically justified. Empirically speaking, in those languages and constructions where overt negation is generated in Comp, its influence parallels that of a superordinate negation. Theoretically, we are now in a position to unify all the polarity (anti)licensors by saying that Comp

¹³ As noticed by Borkin (1971) and Lawler (1971), occurrences of NPIs in *why* and *how* questions do not give rise to rhetorical interpretations:

- (i) why did *anybody* go home so soon?
- (ii) how did *anybody* break open the safe?

Unlike questions in (59) and (60), they presuppose that the action has taken place so that Lawler calls *why* and *how* 'factives'. Notice that the same presupposition facts will obtain if we analyze these *wh*-words as negated NPIs:

- (iii) somebody left home *for no* (obvious) reason
- (iv) somebody broke open the safe *in no* (obvious) way

operators that license NPIs must be negative, whether covert or overt. We can also do better than just stipulate the presence of operators whenever we need one in polarity contexts. In unselected (main) clauses (e.g. questions, conditionals, etc.), the negative operator in Comp will be the result of the indeterminate truth-value of the clause. Thus, whenever a main clause is indeterminate in its truth value, it will be headed by a negative operator in Comp. In embedded complements, a negative operator will be generated in Comp only as a result of a projection of a negative feature from a predicate, such as verbs or prepositions with inherent negation.

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