

# The Genesis of Negative Concord: Syntax and Morphology of Negative Doubling

Akira Watanabe

I show that negative concord involves checking of the neg-features prompted by the uninterpretable focus feature of concord items, recasting Haegeman and Zanuttini's (1991, 1996) original account in the general theory of feature checking. A key theoretical mechanism is feature copying, which derives the core part of Neg-Factorization and is also shown to provide the foundation for the notion of chains defined in terms of occurrences. The proposed analysis of negative concord supports Merchant's (2001) theory of ellipsis, according to which ellipsis is PF deletion and requires semantic identity. I also discuss in detail how morphology interacts with properties of negative concord, taking into account wide-ranging crosslinguistic patterns.

**Keywords:** negative concord, negative doubling, uninterpretable focus features, feature copying, chains, ellipsis, indeterminates, minimizers, Japanese

## 1 Introduction

In this article, I look at the syntactic mechanism and morphology of negative concord, arguing that negative concord items are inherently negative. Negative concord covers at least two subcases, which are dubbed by Den Besten (1986) *negative doubling* and *negative spread*. The distinction between the two is a matter of theory, but if negative doubling is defined as cases where a sentential negation marker cooccurs with a negative concord item, it covers (1a–b), from West Flemish and Italian, respectively.

- (1) a. . . . da Valère niemand nie (en)-kent  
that Valère nobody not NEG-know  
' . . . that Valère doesn't know anybody'  
b. Non ho visto nessuno.  
NEG have seen nobody  
'I didn't see anybody.'

Materials discussed in this article were presented at the Sophia Symposium on Negation held in May 2001, in a graduate seminar at the University of Tokyo in 2002, and in a lecture series at Kwansei Gakuin University in September 2003. For comments and discussion, I would like to thank the audiences there (Larry Horn and Yasuhiko Kato, in particular), as well as Hirohisa Kiguchi, Yuji Takano, and anonymous reviewers. I am also grateful to Željko Bošković, Anoop Mahajan, and Itziar San Martin for discussion of Serbo-Croatian, Hindi, and Basque data, respectively. Any remaining error belongs to me.

Negative spread, on the other hand, involves two or more negative concord items, as in (2a–b), again from West Flemish and Italian.

- (2) a. . . . dat-ter    entwien    an niemand niets    gezeid eet  
           that-there somebody to nobody nothing said has  
           ‘. . . that somebody didn’t tell anyone anything’  
       b. Nessuno ha    letto niente.  
           nobody has read nothing  
           ‘Nobody read anything.’

My primary concern here is negative doubling, though I will make some remarks on negative spread as well. My results indicate that (1a) should in fact be classified as negative spread.

For those languages that exhibit double negation within a single clause, it is fairly obvious that the negative concord item is inherently negative. West Flemish is such a language, as discussed in detail by Haegeman and Zanuttini (1991, 1996) and Haegeman (1995). (3), which differs minimally from (1a) in word order, is an example of double negation.

- (3) . . . da    Valère nie niemand (en)-kent  
           that Valère not nobody NEG-know  
           ‘. . . that Valère doesn’t know nobody’

If *niemand* contributes negation on its own in (3), the interesting question arises how to avoid double negation in examples like (1a).

For languages like Japanese that never allow double negation within a single clause, however, it is not straightforward to show what is going on. Previous studies (Aoyagi and Ishii 1994, Kato 1985, 2000, Sohn 1995, and the references cited there) simply assume that the relevant Japanese expressions, illustrated in (4), are negative polarity items, comparing them with their English counterparts.

- (4) a. John-wa nani-mo tabe-nak-atta.  
           John-TOP what-MO eat-NEG-PAST  
           ‘John didn’t eat anything.’  
       b. \*John-wa nani-mo tabe-ta.  
           John-TOP what-MO eat-PAST

Here, I demonstrate that the traditional view is untenable and that the Japanese phenomenon is comparable to West Flemish cases like (1a). In other words, Japanese expressions like *nani-mo* ‘what-*mo*’ must be analyzed as inherently negative.

To derive the negative concord reading in cases like (4a), I argue that the treatment of negative concord should be fully integrated into the general theory of feature checking. In so doing, I suggest that the uninterpretable focus feature, which is proposed in Watanabe 2002c on the basis of the analysis of *wh*-questions as the  $\bar{A}$  analogue of Case, and which is the deficiency that makes the goal active for the Agree operation along the lines suggested by Chomsky (2000), plays a very significant role in the syntax of negative concord. Furthermore, the idea that feature checking involves copying of interpretable features onto the probe, proposed by Chomsky (1998)

but abandoned in later works of his (Chomsky 2000, 2001), is shown to derive the semantic interpretation of negative doubling in a natural way. Independent strong empirical evidence for feature copying in the A-movement system has already been presented in Watanabe 2000. The analysis of negative concord proposed here lends further support to it.

In addressing these points, I will focus on two neglected aspects of the phenomena related to negative concord: ellipsis resolution and morphosyntax. My results reinforce the position argued for by Merchant (2001), according to which ellipsis involves PF deletion and requires a semantic, not syntactic, identity condition. In addition, I will show that focus morphology is closely correlated with crosslinguistic variations in the system of negative concord. The presence or absence of negative morphology is sometimes taken up in the literature, but I argue that it should be only a minor consideration.

The article is organized as follows. In section 2, I apply the criteria for negative concord discussed in the literature and show that the Japanese phenomenon is a good candidate for negative concord. By focusing closely on the properties of elliptical answers, I demonstrate in section 3 that negative concord items are inherently negative, contrary to Giannakidou's (2000) proposal. In section 4, I formulate a specific hypothesis about feature checking in negative concord and show that the analysis of elliptical answers presented in section 3 motivates feature copying. In section 5, I show that negative spread involves a mechanism independent of negative doubling and therefore that negative spread and negative doubling are separate phenomena, though they may be related. I turn to morphological aspects of negative concord items and their crosslinguistic variations in section 6, and conclude the article in section 7.

## 2 Japanese

Japanese has expressions consisting of a *wh*-phrase and a particle *mo* that must be licensed by negation, as in (5), where the double negation reading is impossible.

- (5) a. John-wa nani-mo tabe-nak-atta.  
       John-TOP what-MO eat-NEG-PAST  
       'John didn't eat anything.'
- b. \*John-wa nani-mo tabe-ta.  
       John-TOP what-MO eat-PAST
- c. Dare-mo monku-o iwa-nak-atta.  
       who-MO complaint-ACC say-NEG-PAST  
       'Nobody complained.'
- d. \*Dare-mo monku-o it-ta.  
       who-MO complaint-ACC say-PAST

The traditional approach to this type of expression is to regard its licensing as a matter of negative polarity (see Aoyagi and Ishii 1994, Kato 1985, 2000, Sohn 1995, and the references cited there).<sup>1</sup>

<sup>1</sup> Kishimoto (2001) and Takahashi (2002) also assume that they are polarity items, though their direct concern is not the licensing of these expressions.

In this section, I will apply the diagnostics that have been employed to identify negative concord items to show that it is reasonable to treat the Japanese phenomenon in (5) as negative concord.

Vallduví (1994) uses four diagnostic tests to distinguish between concord and polarity items in Catalan and Spanish. These are listed in (6).

- (6) a. Ability to appear in nonnegative contexts
- b. Ability to appear in preverbal position
- c. Ability to be modified by expressions like *almost*
- d. Ability to be used as an elliptical answer

To these four, Giannakidou (2000) adds the following:

- (7) Clause-boundedness

In general, the negative concord item cannot appear in nonnegative contexts, can appear in the preverbal subject position above negation, can be modified by expressions like *almost*, can be used as an elliptical answer, and cannot be licensed across an indicative clause boundary. The negative polarity item displays the opposite behavior.

For the argument to be watertight, the precise working of these tests must be provided with a theoretical account. In the next two sections, I will focus on (6d), showing that such an account exists for that test. Here, I just assume that the tests in (6) and (7) can serve as rules of thumb. Let us examine relevant data.

First, the Japanese *wh + mo* expression cannot appear in nonnegative contexts such as yes-no questions and conditionals, whereas the negative polarity item in English can, as illustrated in (8) and (9).<sup>2</sup> Throughout, Japanese examples are translations of the English counterparts (whether they are grammatical or not). The (c) examples in (8)–(10) and (12)–(13), from Vallduví 1994 and Suñer 1995, illustrate Spanish negative concord items.

- (8) a. Have you seen anything?
- b. \*Nani-mo mi-mashi-ta ka?
- what-MO see-POLITE-PAST Q
- c. \*¿Quieres nada?<sup>3</sup>
- want-2SG nothing
- 'Do you want anything?'
- (9) a. If John steals anything, he'll be arrested.
- b. \*John-ga (moshi) nani-mo nusun-dara, taihos-areru daroo.
- John-NOM if what-MO steal-COND arrest-PASS be-will

<sup>2</sup> Because of its ability to appear in nonnegative contexts, Giannakidou (1998, 2000) suggests the term *affective polarity item* for English *any*. Throughout this article, however, I will use the traditional terminology.

<sup>3</sup> Vallduví notes that there are speakers for whom cases like (8c) are acceptable. Herburger (2001) and Suñer (1995) observe that questions license negative concord items in Spanish only when they are rhetorical.

- c. \*Si quieres nada, avísame.  
 if want-2SG nothing warn-2SG-IMP.me  
 'If you want anything, let me know.'

The point is whether something other than negation can act as a licenser and make a nonnegative reading of the relevant expression possible.<sup>4</sup> This test will be taken up again in section 6.

Second, the Japanese *wh + mo* expression can appear in subject position, in contrast to the English negative polarity item, as shown in (10).

- (10) a. \*Anybody didn't criticize John.  
 b. Dare-mo John-o hihanshi-nak-atta.  
     who-MO John-ACC criticize-NEG-PAST  
     'Nobody criticized John.'  
 c. Nada funciona.  
     nothing work-3SG  
     'Nothing works.'

(5c) makes the same point. Since Japanese is strictly head-final, it makes no sense to talk about the restriction to preverbal position in connection with this language. The provision is made for Romance null subject languages, where the subject (as well as the object and other elements) can appear in a postverbal position. Rather, the point is whether the item in question can be raised beyond the negation marker or not. In fact, the test does not have to be limited to the subject.

Third, modifiability by expressions like *almost* is sometimes considered to be associated with universal quantification. (11) shows that when modified by *hotondo* 'almost', universal and existential quantifiers behave differently in Japanese, as expected.

- (11) a. John-wa hotondo subete-no shigoto-o oe-ta.  
     John-TOP almost all-GEN work-ACC finish-PAST  
     'John finished almost all the work.'  
 b. \*John-wa hotondo nani-ka-o tabe-ta.  
     John-TOP almost what-KA-ACC eat-PAST  
     '\*John ate almost something.'

It is for this reason that Haegeman and Zanuttini (1996) assume that negative concord items are universal quantifiers with inherent negation. Strictly speaking, the test is orthogonal to the question of inherent negativity itself. It may not even be relevant for picking up universal quantification, either, for numerals can be modified by *almost*, as noted for example by Suñer (1995).<sup>5</sup> Neverthe-

<sup>4</sup> Of course, once negation is added, *wh + mo* can appear in yes-no questions and conditionals.

<sup>5</sup> According to Déprez (2000), the observation goes back to Partee 1986, which I have not had a chance to look at. Suñer gives Spanish examples like (i).

(i) Su colección contiene casi 20,000 volúmenes.  
 his/her collection has almost 20,000 volumes  
 'His/Her collection has almost 20,000 volumes.'

less, it does distinguish concord items from polarity items in Catalan and Spanish, as shown by Vallduví (1994). See Horn 2000 for a detailed discussion of why polarity items cannot be modified by expressions like *almost*. The Japanese *wh + mo* expression counts as a concord item, according to this test.

- (12) a. \*John didn't eat almost anything.  
 b. John-wa hotondo nani-mo tabe-nak-atta.  
    John-TOP almost what-MO eat-NEG-PAST  
    'John ate almost nothing.'  
 c. No llamó casi nadie.  
    NEG called almost nobody  
    'Almost nobody called.'

Next, the concord item can appear as an elliptical answer, whereas the polarity item cannot. The Japanese *wh + mo* expression turns out to count as a concord item again.<sup>6</sup>

- (13) a. Q: What did you see?  
    A: \*Anything.  
 b. Q: Nani-o mita no?  
    what-ACC saw Q  
    A: Nani-mo.  
    what-MO  
    'Nothing.'  
 c. Q: ¿A quién has visto?  
    DAT who have-2SG seen  
    'Who did you see?'  
    A: A nadie.  
    DAT nobody

The idea is that the ability to contribute negative meaning in the absence of a negation marker indicates the inherent negativity of the concord item. As we will see in the next section, things are not as simple as that. But this test turns out to provide the strongest evidence for inherent negativity.

<sup>6</sup> It seems to me that a negative concord item serving as an elliptical answer is most natural when it is an answer to a yes-no question having an existential quantifier, as in (i).

- (i) Q: Nani-ka mita?  
    something saw  
    'Did you see something?'  
 A: Nani-mo.  
    what-MO  
    'Nothing.'

Since such questions function as *wh*-questions (see Ausín's (1999) analysis of English), the same point carries over to these cases.

Finally, licensing of the concord item is clause-bound, while that of the polarity item is not, where finite indicative clauses count in defining clause boundaries.

- (14) a. I didn't say that John admired anyone.  
 b. ?\*Boku-wa [John-ga dare-mo sonkeishiteiru to] iwa-nak-atta.  
 I-TOP John-NOM who-MO admire C say-NEG-PAST

This contrast itself does not tell much about the mechanism of licensing, but it is consistent with the idea that polarity and concord items are licensed in different ways.<sup>7</sup>

To sum up, the Japanese *wh + mo* expression systematically behaves like a negative concord item with respect to the five tests in (6) and (7). It should be noted, however, that the discussion so far is not sufficient to establish the inherent negativity of negative concord items. Some of these tests are not even relevant. Furthermore, the validity of these tests for establishing inherent negativity has been questioned (see Giannakidou 2000). To show that negative concord items are indeed inherently negative, we thus need to go beyond just applying these tests.

### 3 The Ellipsis Problem

Let us take up again the ability of a negative concord item to be used as an elliptical answer, a criterion originally due to Zanuttini (1991).<sup>8</sup> As mentioned above, the basic idea is that the ability to appear in the absence of an overt negation marker indicates inherent negativity. A close examination of the structure involved in elliptical answers, however, reveals that the phenomenon is unexpectedly complex.

#### 3.1 Logical Space for Analysis

The issue here is whether negative concord items are inherently negative or not in languages like Japanese. So there are only two logical possibilities to consider vis-à-vis the ellipsis test. Let us start by reviewing Giannakidou's (2000) analysis based on Modern Greek as representative of the approach that takes negative concord items to be nonnegative. The analysis of negative concord items as inherently negative will be taken up next.

Giannakidou (1998, 2000) claims that negative concord items in Modern Greek are not negative after all. She therefore calls them *emphatics*, reflecting the fact that they bear stress. In Modern Greek, the same expression behaves differently with respect to the criteria in (6) and (7), depending on the presence or absence of stress. In the terminology used here, those with stress are negative concord items, and those without stress are negative polarity items. Relevant examples are given in (15), where capital letters indicate the presence of stress.

<sup>7</sup> See Longobardi 1991 for some complications. See also Maeda 2003 and Yamashita, to appear, for an account of clause-boundedness in terms of phase impenetrability that is consistent with the proposal in this article.

<sup>8</sup> See also Haspelmath 1997.

- (15) a. I Theodra \*(dhen) enekrine {kanena/KANENA} sxedhio.  
 the Theodra NEG approved-3SG any/no plan  
 'Theodra didn't approve any plan./Theodra approved no plan.'
- b. Pijes {pote/\*POTE} sto Parisi?  
 went-2SG ever/never in-the Paris  
 'Have you ever been to Paris?'
- c. {KANENAN/\*Kanenani} dhen idha.  
 nobody/anybody NEG saw-1SG  
 'I saw nobody.'
- d. Dhen idha sxedhon {KANENAN/\*kanenani}.  
 NEG saw-1SG almost nobody/anybody  
 'I saw almost nobody.'
- e. I Ariadhni dhen ipe oti idhe {tipota/\*TIPOTA}.  
 the Ariadne NEG said-3SG that saw-3SG anything/nothing  
 'Ariadne didn't say that she saw anything.'

Both types require an overt negation marker (15a). Negative concord items (emphatics in Giannakidou's terminology) cannot occur in nonnegative contexts (15b). They can appear in preverbal position (15c). They can be modified by expressions like *almost* (15d). And they cannot be licensed across a clause boundary (15e). Their stressless counterparts consistently display the opposite behavior. Thus, emphatics pass four of the five tests for identifying negative concord introduced in section 2. They pass the elliptical answer test, too, as we will see.

For Giannakidou, both types are nonnegative. Emphatics are universal quantifiers that must take scope over negation. Their stressless counterparts are existential quantifiers that always take narrow scope below negation, though the licenser is not limited to negation. Giannakidou thus agrees with Déprez (1999, 2000) and Laka (1990), for example, in treating negative concord items as nonnegative, though Déprez and Laka do not take them to be universal quantifiers. Here, I will not discuss how Giannakidou's account fares in dealing with the facts in (15). Instead, I would like to concentrate on the possibility of using an emphatic as an elliptical answer.

Giannakidou claims that emphatics are nonnegative, even though they can appear as elliptical answers, as in the question-answer pair in (16).

- (16) Q: Ti idhes?  
 what saw-2SG  
 'What did you see?'
- A: TIPOTA.  
 nothing.

Recall that the point of this test is to say that those items that can stand alone as elliptical answers and express negation must be inherently negative. Giannakidou counters by saying that the elliptical answer in (16) should be analyzed as having the structure in (17), where the overstrike indicates the ellipsis site.



- (17) TIPOTA [*dhen idha*].  
 nothing NEG saw-1SG

She argues that it is not necessary to assume that emphatics are inherently negative, because the elided part contains the negation marker. In defense of her nonnegative indefinite analysis, Déprez (1999:408, 2000:270) hints at something similar for elliptical answer data of the same type in Haitian, but she does not develop the idea fully. (Regarding Déprez's Haitian data, see section 6.2 below.)

There is a serious flaw in this argument, however: namely, it does not take into account the requirement that ellipsis must have an antecedent. In view of this requirement, what is going on in (16)–(17) is strange. Giannakidou's analysis forces us to say that *idhes* 'saw-2sg' can be the antecedent of *dhen idha* 'not saw-1sg'. The difference in the value of  $\phi$ -features does not matter. What is really problematic is a negative open proposition taking an affirmative open proposition as its antecedent for the purpose of ellipsis.<sup>9</sup> To see the problem clearly, let us consider an elliptical answer that does not involve a negative concord item.

Here, I use Japanese examples. Japanese behaves exactly the same as Modern Greek, as far as the typology of negative concord is concerned. In both languages, double negation is impossible, sentential negation is expressed by a headlike negation marker only, and negative concord does not require phrasal movement. Furthermore, negative concord items (or emphatics) always require an overt negation marker.

If Giannakidou's analysis is applied to Japanese, the elliptical answer in (18a) should have the representation in (18b).

- (18) a. Q: Nani-o mita no?  
           what-ACC saw Q  
           'What did you see?'  
       A: Nani-mo.  
           what-MO  
           'Nothing.'  
       b. Nani-mo [*mi-nak-atta*].  
           what-MO see-NEG-PAST

Again, the elided negative open proposition takes its affirmative counterpart as its antecedent. Now consider the question-answer pair in (19).

- (19) Q: Nani-o mita no?  
           what-ACC saw Q  
       A: Hebi.  
           snake

<sup>9</sup> I will take up the formal analysis of ellipsis resolution in section 3.2.

The answer in (19) should be able to have the representation in (20b), if we assume the same ellipsis-antecedent relation in (19) as in (18).

- (20) a. Hebi= $\emptyset$       mita.  
          snake-ACC saw  
          ‘I saw a snake.’  
       b. Hebi= $\emptyset$       mi-nak-atta.  
          snake-ACC saw-NEG-PAST  
          ‘I didn’t see a snake.’

The answer in (19), however, cannot mean what (20b) is supposed to mean. Instead, it has the interpretation deriving from (20a). Of course, this is not surprising. The interpretation in (20b) involves recovering the negative meaning from the preceding context, which, however, does not provide it. At this point, Giannakidou’s account collapses.

Note that the problem generalizes to any account claiming that negative concord items are not semantically negative, such as those of Déprez (1999, 2000) and Laka (1990). This type of account must assume that the negation marker that appears in negative concord carries the negative meaning that is expressed. The elided part in an elliptical answer must likewise contain such a negative marker, aborting a successful ellipsis resolution. The nonnegative analysis thus comes to a dead end.<sup>10</sup>

We are thus left only with the possibility that negative concord items are inherently negative. According to this approach, *tipota* in (16) and *nani-mo* in (18) have their inherent negative meaning, so that it does not seem to be necessary to recover the negative meaning from the context. At first sight, however, the same problem appears to remain, if the elliptical answer in (18a) should be analyzed as (18b). How can a negative open proposition be elided when the antecedent is affirmative? This is the dead end that faces the nonnegative analysis. We are forced to say that the elided part does not contribute the negative meaning even if it contains a negation marker,<sup>11</sup> in order to allow the elided open proposition to take an affirmative proposition as its antecedent. Is this position tenable?

<sup>10</sup> Except for Déprez’s (1999, 2000) proposal about French, which analyzes the French negative concord expressions as containing the meaning of the numeral ‘zero’, so that no negative meaning needs to be posited in the elided part. Haegeman (1997) points out, however, that Déprez’s account leaves unexplained the appearance of the Neg head *ne* as in (i).

(i) Je n’ai          vu    personne.  
       I   NEG-have seen nobody  
       ‘I didn’t see anybody.’

See also footnote 28. In any case, it is fairly obvious that the “numeral zero” approach cannot be extended to languages like Japanese and Modern Greek, since concord items in these languages require the presence of a sentential negation marker.

Part of the motivation for Déprez’s analysis of French comes from comparison with Haitian Creole. Her analysis of Haitian concord items as nonnegative indefinites, however, collapses because of the elliptical answer argument. See section 6.2 for the Haitian data.

<sup>11</sup> The only other possibility is to say that the negation marker is not needed when ellipsis takes place. But this possibility leaves it completely mysterious why the negation marker is needed when ellipsis does not take place.

The answer is yes, because one important aspect of the approach that treats negative concord items as inherently negative is that there must be some mechanism that ensures the negative concord interpretation. In cases like (21), only one negative meaning is expressed.

(21) John-wa nani-mo tabe-nak-atta.

John-TOP what-MO eat-NEG-PAST

‘John didn’t eat anything.’

Japanese does not allow double negation in such examples. The same is true with the Modern Greek counterpart. The negation marker in (21) is the same as the one that appears in simple sentential negation, as in (22).

(22) John-wa choushoku-o tabe-nak-atta.

John-TOP breakfast-ACC eat-NEG-PAST

‘John didn’t eat breakfast.’

If the negative concord item in (21) is semantically negative, the sentence should exhibit double negation, contrary to fact, since the negation marker itself should also be able to contribute a negative meaning. The same problem arises for the West Flemish example in (1a), repeated here.

(1) a. . . . da Valère niemand nie (en)-kent.

that Valère nobody not NEG-know

‘. . . that Valère doesn’t know anybody.’

For this reason, Haegeman and Zanuttini (1996) propose the mechanism of Neg-Factorization, which applies to delete all but one negation when a certain syntactic condition is met.<sup>12</sup> Haegeman and Zanuttini do not specify which element retains the negative meaning after Neg-Factorization, but let us suppose that the negative concord item does in the cases above. It follows that in the representation in (18b), the elided part is no longer semantically negative after Neg-Factorization applies, the result that we need.

Van der Wouden (1997) makes a proposal that achieves the same result, but by stipulation. He claims that the negation marker denotes the identity function in the context of negative doubling. Thus, its semantic contribution is essentially zero. Though it solves the ellipsis problem, van der Wouden’s account offers no explanation for why the ordinary meaning of the negation marker is suppressed in the context of negative doubling. For that matter, the stipulatory nature of Haegeman and Zanuttini’s Neg-Factorization is criticized in Giannakidou 2000. But the availability of some account that works is better than a dead end.

To summarize, the possibility of elliptical answers provides a conclusive argument that negative concord items are inherently negative. If we assume that negative concord items are not negative, we face a dead end. If we treat negative concord items as inherently negative, there is a way out, though it looks stipulative at present. Obviously, we would like to do better than ending up with a stipulation. And indeed we can, as we will see in section 4.

<sup>12</sup> I will come back to the details in section 4.

Before we move on, I should mention one important conclusion about ellipsis that the analysis of elliptical answers leads to. Note that the identity condition imposed on ellipsis cannot be syntactic in nature. In the question-answer pair in (18), the antecedent does not contain a negation marker, which is present in the ellipsis site. Ellipsis is possible in spite of syntactic distinctness, however, because the elided part becomes semantically equivalent to the antecedent as a result of Neg-Factorization. In other words, ellipsis resolution refers to semantic identity. This is one of the conclusions about ellipsis independently reached by Merchant (2001) on the basis of sluicing. In the next section, I implement the analysis of interaction between elliptical answers and negative concord in terms of Merchant's formal apparatus to make sure there is no loophole in the argument I am making.

### 3.2 Formalization of Ellipsis Resolution

Merchant (2001) proposes (23) as a general condition on ellipsis, which makes use of the notions defined in (24) and (25).

(23) A constituent  $\alpha$  can be deleted only if  $\alpha$  is e-GIVEN.

(24) An expression  $E$  counts as e-GIVEN iff  $E$  has a salient antecedent  $A$  and, modulo  $\exists$ -type shifting,  
 a.  $A$  entails the  $F\text{-clo}(E)$ , and  
 b.  $E$  entails the  $F\text{-clo}(A)$ .

(25) *F-closure*

The  $F$ -closure of  $\alpha$ , written as  $F\text{-clo}(\alpha)$ , is the result of replacing focus-marked parts of  $\alpha$  with  $\exists$ -bound variables of the appropriate type (modulo  $\exists$ -type shifting).

The e-GIVENness condition ensures semantic isomorphism.

To see the working of (23), consider the following example of sluicing, where *Abby* is focus-marked.

(26) ABBY called Ben an idiot, but I don't know who else.

The second clause of (26) must be interpreted as (27a), not as (27b).

(27) a. . . . but I don't know who else called Ben an idiot.  
 b. . . . but I don't know who else Abby called an idiot.

In sluicing, TP is elided. Its antecedent  $A$  in (26) is the first clause. Assuming the interpretation in (27a),  $A$  and  $E$  for (26) are as follows:

(28) a.  $A$  = ABBY called Ben an idiot  
 b.  $E$  =  $\exists x.x$  called Ben an idiot

Here,  $\exists$ -type shifting, which raises expressions to type  $\langle t \rangle$  and existentially binds unfilled arguments, yields existential quantification for the elided TP, as in (28b). The  $F$ -closures of  $A$  and  $E$  are shown in (29).

- (29) a.  $F\text{-clo}(A) = \exists x.x \text{ called Ben an idiot}$   
 b.  $F\text{-clo}(E) = \exists x.x \text{ called Ben an idiot}$

The sluiced TP satisfies the definition of e-GIVENness in (24). The sluicing in (26) is thus legitimate with respect to the condition in (23). If the interpretation in (27b) is intended, the  $E'$  for (26) is this:

- (30)  $E' = \exists x. \text{ Abby called } x \text{ an idiot}$

$E'$  does not entail  $F\text{-clo}(A) = \exists x.x \text{ called Ben an idiot}$ . Ellipsis is correctly predicted to be impossible.

Turning to the elliptical answer with negative concord, consider (18a), repeated in (31) together with the deleted material.

- (31) Q: Nani-o mita no?  
           what-ACC saw Q  
           ‘What did you see?’  
 A: Nani-mo [~~mi-nak-atta~~].  
       what-MO see-NEG-PAST  
       ‘(I saw) nothing.’

Assuming that the interrogative interpretation arises at the CP level, the antecedent TP in (31) is  $\exists x. \text{ you saw } x$ . The elided part is  $\exists x. \text{ I saw } x$ , if the negation marker does not contribute the negative meaning. Since the second person subject of the question refers to the same individual as the first person subject of the answer, (24) is met.<sup>13</sup>

In response to the argument in section 3.1, which is also presented in Watanabe 2002a, Giannakidou (to appear) tries to save the nonnegative analysis of negative concord items by saying that Merchant’s semantic identity condition allows a proposition in the set denoted by the *wh*-question to act as the antecedent of the elided answer. Here, the *wh*-question is assumed to denote a set of propositions along the lines proposed in Hamblin 1973. The question in (31) denotes the following set:

- (32) {You saw nobody, You saw John, You saw Mary, . . . }

Giannakidou claims that the elliptical answer can take a member of this set as its antecedent. The negative proposition in (32) licenses the ellipsis in (31), according to this claim.

Three major problems make this suggestion untenable. One is that the antecedent is supposed to be a linguistic expression, not a semantic entity such as a proposition, strictly speaking. From this perspective, it is illegitimate to pick up a member from the set of propositions denoted by a

<sup>13</sup> One technical point to fix is that (23) concerns ellipsis of a constituent. The elided part in (31) must contain a null subject but exclude the overt direct object. One option here is to adapt Merchant’s (2001) analysis of sluicing to elliptical answers: elliptical answers involve deletion of the complement of the Focus head in the sense of Rizzi 1997, with the overt part occupying Spec,Foc(us)P.

*wh*-question as an antecedent for ellipsis resolution. Second, this suggestion ignores the fact that Merchant's condition in (23) requires the elided part, not the entire sentence, to have an appropriate antecedent. Otherwise, the resolution of sluicing in (26) would be impossible as long as a question denotes a set of propositions, because there is no semantically equivalent antecedent that denotes a set of propositions. In the case of elliptical answers, once the elided part is forced to seek an antecedent, some further operation must be conducted on the negative proposition in (32), because under Giannakidou's approach to negative concord, the elided part would contain negation but not the quantifier, as in (33).

(33)  $\neg$ I saw x

It is highly dubious that such an operation is needed to find an antecedent for ellipsis.

Even if we set aside these two problems, there is another. This is actually the fatal one. The definition of e-GIVENness refers to the notion of F-closure. If the antecedent proposition is **You saw nobody**, its F-closure must be found. In this case, it is  $\exists x$ . **you saw x**. Negation is part of the focus, so that it does not appear in the F-closure. This F-closure of the putative antecedent is not entailed by the answer proposition, failing to satisfy (24b). Thus, Giannakidou's (to appear) proposal does not work under Merchant's (2001) system.

To conclude the discussion in this section, the nonnegative approach to negative concord leaves no way out of the problem posed by elliptical answers. The view that regards negative concord items as inherently negative can solve the problem, but only with what looks like a stipulation: Haegeman and Zanuttini's (1996) Neg-Factorization, or van der Wouden's (1997) context-sensitive semantics of the negation marker. In the next section, where I discuss the syntax of negative doubling, I will show that we can obtain the desired result without such a stipulation.

## 4 The Syntax of Negative Doubling

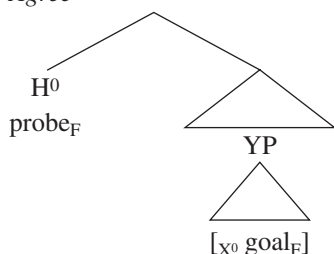
### 4.1 Theoretical Framework

The theory of feature checking in Chomsky 2000, 2001 provides the basic framework for a principled account of negative doubling. Let us first review the machinery needed for the subsequent discussion.

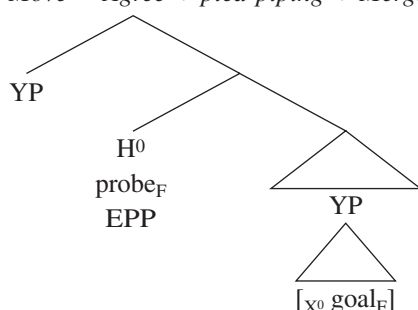
The key element in the theory of feature checking is the behavior of formal features in the sense of Chomsky 1995, which lies behind the displacement phenomena. Chomsky (2000) introduces the notions of Agree, probe, and goal. In the Agree operation, a set of formal features within a head  $H^0$  acts as a probe, seeking a set of matching features in the sister constituent of  $H^0$  under the locality of closest c-command. The latter set of matching features is called the goal. Displacement of a category containing the goal is triggered when the functional head that contains the probe has in addition an EPP feature, now available not only for  $T^0$  but also for other functional categories. A category containing the goal is copied by pied-piping, and then it is merged with the projection of  $H^0$ . This composite operation of Agree, pied-piping, and Merge is called

Move. Schematically:

(34) a. *Agree*



b. *Move = Agree + pied-piping + Merge*



The lower copy of  $YP$  in (34b) becomes phonologically null.

Chomsky (1995) makes a distinction among formal features in terms of LF interpretability. This distinction is introduced to explain why some features continue to be available to the syntactic computation even after checking while others do not. Those that continue to be available do so because they are needed for LF interpretation anyway. Those that are uninterpretable must be eliminated before the end of the derivation to ensure LF convergence. Failure to eliminate uninterpretable features leads the derivation to crash at LF. Thus, uninterpretable formal features are eventually sent to the PF computation after the Agree operation. Chomsky (2000) imposes the condition that the goal must be active in order for Agree to take place, meaning that the goal must be rendered active by the presence of an uninterpretable feature. For  $\phi$ -feature checking, structural Case is the uninterpretable feature in question. In Watanabe 2002c, I propose that an uninterpretable focus feature plays the same role in Q-feature checking for *wh*-questions as structural Case. I will turn to this focus feature in section 4.3.

The  $\phi$ -features of the probe are uninterpretable in  $\phi$ -feature checking, but the  $\bar{A}$ -dependency for *wh*-questions is different on this point. Though Chomsky at one point (2000) suggests the possibility that the probe is uninterpretable in *wh*-movement as well, he later (2001:n. 57) leaves open the mechanism of  $\bar{A}$ -dependencies. See Watanabe 2004 for the argument that the probe is not active in the sense of being uninterpretable in the case of *wh*-questions. Similarly, I will propose below that the probe is an interpretable neg-feature in negative doubling.

One important property of Chomsky's (2000, 2001) framework is that Agree alone can take place without displacement, thus eliminating the need for a separate LF computation. This move streamlines the derivation significantly, and I will adopt it in the subsequent analysis. I will also adopt the multiple Spec system of the bare phrase structure theory (Chomsky 1995). In implementing it, I adopt Bošković's (1999) Attract-All mechanism, following a suggestion by a reviewer. In the overall framework adopted here, Attract-All is a property of the EPP, requiring all the phrases containing a feature that undergoes Agree to be raised to the specifier (Spec) position. Also see Pesetsky's (2000) proposal about the maximum satisfiable specifier potential.

#### 4.2 Previous Attempts

Now, we are ready to discuss the syntactic aspects of negative doubling. The point of departure is Haegeman and Zanuttini's (1991, 1996) and Haegeman's (1995) account of negative concord in terms of the Neg-Criterion. As mentioned in section 1, a word order difference gives rise to two distinct readings in West Flemish. The relevant contrast is given in (35).

- (35) a. ... da Valère niemand nie (en)-kent  
           that Valère nobody not NEG-know  
           '... that Valère doesn't know anybody' (negative concord)
- b. ... da Valère nie niemand (en)-kent  
           that Valère not nobody NEG-know  
           '... that Valère doesn't know nobody' (double negation)
- c. ... da Valère an niemand niets nie gezeid eet  
           that Valère to nobody nothing not said has  
           '... that Valère didn't say anything to anyone' (negative concord)
- d. ... da Valère an niemand nie niets gezeid eet  
           that Valère to nobody not nothing said has  
           '... that Valère didn't say nothing to anyone' (double negation)

In (35a), the negative concord item *niemand* precedes the sentential negation marker *nie*, yielding the negative concord reading. In (35b), on the other hand, *niemand* follows *nie*, resulting in double negation. Haegeman and Zanuttini (1996:133) observe that the same is true when there is an additional concord item, as in (35c–d).

To deal with this phenomenon, Haegeman and Zanuttini propose that the Neg-Criterion in (36), in combination with Neg-Factorization, lies behind negative concord.

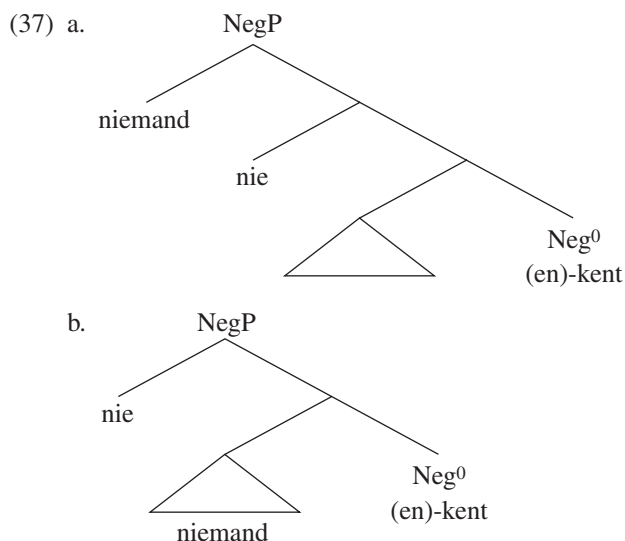
#### (36) Neg-Criterion

- a. A Neg-operator must be in a Spec-head configuration with an  $X^0$  [Neg].
- b. An  $X^0$  [Neg] must be in a Spec-head configuration with a Neg-operator.

They claim that negative concord items are inherently negative and that *niemand* is raised to



Spec, NegP to satisfy the Neg-Criterion in (35a) but not in (35b).<sup>14</sup> The relevant part of the structure for (35a–b) is shown in (37), with the multiple Spec system not yet available at the time of Haegeman and Zanuttini's works.



(37a) corresponds to (35a), and (37b) to (35b). Neg-Factorization, a process that is supposed to apply to the Neg head and the phrases raised to Spec,NegP, applies to *niemand* in (35a)/(37a), but not in (35b)/(37b). Hence the double negation reading in (35b)/(37b). A similar account holds for (35c–d) as well.

According to Haegeman and Zanuttini, the Neg head can be null or be realized by the clitic *en* in West Flemish. But the Neg head alone cannot support sentential negation, as shown by the ill-formedness of (38a).

- (38) a. \*... da Valèrè dienen boek en-eet  
that Valèrè that book NEG-has  
'... that Valèrè doesn't have that book'  
b. ... da Valèrè dienen boek nie (en)-eet  
that Valèrè that book not NEG-has  
'... that Valèrè doesn't have that book'

<sup>14</sup> Two comments are in order here.

First, for the argument based on comparison with Old English that this movement is distinct from scrambling, see Watanabe 2001. The crucial observation is that Old English allows negative concord without overt displacement, even though it has scrambling. See Haeberli and Haegeman 1995 for details of negative concord in Old English.

Second, some provision must be made for negative concord items not raised to Spec,NegP in order to comply with (36a) under this account.

Spec,NegP must be filled by *nie*, as in (38b). A natural way of expressing the inability of the Neg head to stand alone is to adopt the conception of the EPP proposed by Chomsky (2000). In West Flemish, the Neg head has an EPP feature, so that its Spec must always be filled.<sup>15</sup>

It is not a trivial exercise to recast Haegeman and Zanuttini's Neg-Criterion approach in terms of feature checking. Brown (1999) proposes that the neg-feature of negative concord items can be uninterpretable and is deleted once checked with the interpretable neg-feature of the Neg head. In (35b), the failure to raise is an indication that *niemand*, having an interpretable neg-feature in this case, does not undergo checking. This approach, therefore, does not need anything like Neg-Factorization. Note, however, that this analysis cannot handle the elliptical answers discussed above. Ellipsis resolution crucially requires the Neg head in the elided part to be semantically vacuous. The Neg head, however, carries the interpretable neg-feature, which contributes its negative meaning. Furthermore, it is an arbitrary parametric choice to specify the neg-feature of negative quantifiers as uninterpretable in case of negative concord.<sup>16</sup> Under the account to be proposed below, negative concord is expected to be indicated by the morphophonological realization of the features that drive Agree.

Let us consider the other logical possibility, namely, that it is the neg-feature of the Neg head that is uninterpretable in negative doubling (even though this assumption is not consistent with the requirement discussed in section 4.1 that the goal must be active). This time, the neg-feature of the Neg head is deleted upon checking, so that elliptical answers can be handled without difficulty. It also appears at first sight that Neg-Factorization can be dispensed with under this assumption. Careful consideration reveals, however, that Neg-Factorization is needed anyway. Note that the Neg head should be allowed the option of having an interpretable neg-feature after all, because it is needed to express simple sentential negation in Japanese, as illustrated in (39).

- (39) John-wa choushoku-o tabe-nak-atta.  
 John-TOP breakfast-ACC eat-NEG-PAST  
 'John didn't eat breakfast.'

Consider next what happens when the Neg head contains the interpretable neg-feature in the presence of a negative concord item. This should result in double negation, contrary to fact. Cases like (40) lack the double negation reading.

- (40) John-wa nani-mo tabe-nak-atta.  
 John-TOP what-MO eat-NEG-PAST  
 'John didn't eat anything.'

Modern Greek also prohibits double negation in similar cases. To block double negation in (40),

<sup>15</sup> More recently, Haegeman (2001) takes *en* to be the head of a projection higher than (but dependent on) NegP. She also argues for head-initial structure in West Flemish. Throughout this article, I abstract away from details that arise from these points.

<sup>16</sup> The same criticism can be raised against my (2001) account, according to which negative concord involves checking driven by the strong neg-feature of the negative concord item.

some uninterpretable feature must be thrown in to force Agree between the Neg head and the concord item. But then, there is no point in assuming that the neg-feature of the Neg head is uninterpretable in negative doubling in the first place.

To summarize, it seems necessary to assume that something other than neg-features is an uninterpretable feature that drives the Agree operation involving the interpretable neg-features of the Neg head and the concord item, if the Neg-Criterion approach is to be recast in terms of feature checking. In section 4.3, I take up the uninterpretable feature in question. Then, in section 4.4, I propose a novel way of dispensing with Neg-Factorization for negative doubling.

### 4.3 *Morphosyntactic Focus*

Recall that negative concord items in Modern Greek are distinguished from negative polarity items by the presence of stress. Giannakidou (2000) observes that this stress does not lead to focus semantics.<sup>17</sup> I would like to suggest that the stress that negative concord items bear in Modern Greek is a PF realization of the uninterpretable focus feature,<sup>18</sup> a feature that I have proposed elsewhere (Watanabe 2002c) to account for *wh*-/focus movement in Old Japanese. The idea is that to the extent that the semantic notion of focus is accompanied by a morphophonological reflex such as stress, it is reasonable to posit a formal feature that receives no LF interpretation but takes a PF form similar to the morphophonological reflex of focus. Like uninterpretable  $\phi$ -features and structural Case, an uninterpretable focus feature is sent to the PF derivation along the lines suggested by Chomsky (2000). Stress is one option for PF realization of the uninterpretable focus feature. Let me hasten to add that I am not saying that the semantic notion of focus is always accompanied by an uninterpretable focus feature. É. Kiss (1998) emphasizes that there are two types of focus, identificational focus and information focus, and that only identificational focus involves the syntactic projection of the Focus head. In the framework assumed here, this means that in the identificational focus construction, but not in information focus, the Focus head acts as the probe and undergoes the Agree operation with the focused expression that has an uninterpretable focus feature.<sup>19</sup> Elsewhere (Watanabe 2002c), I propose that the uninterpretable focus feature drives *wh*-movement, on the basis of the fact that the focused expression in yes-no questions and the *wh*-phrase, both preposed above the nominative subject, are marked by the same particle in Old Japanese. I am now claiming that the uninterpretable focus feature is also

<sup>17</sup> However, it is not accurate to say that negative concord items always function as something other than focus, since the question-answer pair in (i) clearly indicates that they are compatible with focus semantics.

(i) Q: *Ti idhes?*  
           *what saw-2sg*  
           ‘What did you see?’  
       A: *TIPOTA.*  
           *nothing*

<sup>18</sup> Tsimpli and Roussou (1996) also propose that focus is involved in the licensing of Modern Greek negative concord items, though they do not discuss the issue of interpretability.

<sup>19</sup> I leave open whether the preposed focused expression also has an interpretable focus feature. But see footnote 21.

involved in feature checking of negative concord items. Being uninterpretable, the focus feature in question is compatible with nonfocus semantic interpretations in principle. Thus, the uninterpretable focus feature has some generality in the so-called  $\bar{A}$ -system, though I leave it to future research to see whether every instance of  $\bar{A}$ -movement turns out to be driven by this feature.<sup>20</sup>

At this point, a word may be in order about the Criterion approach reviewed in section 4.2. Haegeman (1995) envisages that the movement systems of *wh*, negation, and focus have something in common and that it should be captured in terms of the Criterion approach. My proposed uninterpretable focus feature can be regarded as the feature that Haegeman envisages. On the other hand, if the Criterion approach is intended to deal exclusively with interpretable features as Rizzi (1997) claims, the uninterpretable focus feature falls outside the Criterion approach and requires a feature-checking system of the sort outlined in section 4.1.

My hypothesis is stated as follows:

- (41) Negative doubling arises when the neg-feature of the Neg head undergoes checking with the neg-feature of negative concord items that are made active by an uninterpretable focus feature. The additional raising of a negative concord item to Spec,NegP is due to the EPP feature of the Neg head.

I would like to emphasize that the uninterpretable feature in question manifests focus morphology, as we will see briefly here and more systematically in section 6. It is interesting to observe that the particle *mo*, which attaches to a *wh*-expression to create a negative concord item in Japanese, is also used as a focus particle meaning ‘even’ and ‘also’. If the checking operation involved in negative concord is driven by the uninterpretable focus feature, it is not surprising that the focus system makes use of the phonologically identical particle for nonvacuous semantic interpretation. This point is elaborated further in relation to the structure of DP in section 6.3.

Some reviewers object to the word *focus* in *uninterpretable focus feature*. Those who share this opinion can use whatever name sounds appropriate (say, *FM feature*). What matters in theorizing is the precise identification of the proposed notion. The formal feature in question here, which participates in the  $\bar{A}$ -system, is uninterpretable on the LF side, and its PF realization is deceptively similar to those PF properties associated with the semantic notion of focus.<sup>21</sup>

<sup>20</sup> See Watanabe 2003, where I suggest that topicalization is driven by an uninterpretable topic feature, which is realized as the topic marker *wa* in Modern Japanese and as *ha* in Old Japanese. The topic marker is distinct from the focus particle in Old Japanese.

<sup>21</sup> A reviewer suggests the possibility that the feature in question is an operator feature that needs to have scope and is uninterpretable in situ. This alternative is flatly incompatible with the copy-and-merge view of the movement operation adopted here, since it implies that the feature becomes interpretable once raised.

Another reviewer raises the interesting question whether the Focus head can license a negative concord item in the absence of the Neg head. The answer seems to be no, given that in Modern Greek, a negative concord item always requires negation, despite the presence of focus movement. See Tsimpli and Roussou 1996 and the references cited there for focus movement in Modern Greek. There are various possibilities to pursue. One is to take seriously the idea that the goal must be active in order to undergo Agree. Suppose that the goal can be active only when there is an additional uninterpretable feature—in other words, that the goal itself must be (a set of) interpretable features made active by something else. It then follows that checking of a concord item always requires a matching neg-feature, and also that focus agreement requires an interpretable focus feature as the goal. Further exploration of the focus system and its interaction with other  $\bar{A}$ -processes, however, goes well beyond the scope of this article.

(42) I    Theodra dhen enekrine        KANENA sxedhio.  
       the Theodra NEG approved-3SG no        plan  
       ‘Theodra approved no plan.’

(43) John-wa nani-mo tabe-nak-atta.  
John-TOP what-MO eat-NEG-PAST  
'John didn't eat anything.'

Sohn (1995) argues that the negative concord item is raised to Spec,NegP in Japanese,<sup>22</sup> on the grounds that the scope of negation with respect to another quantifier is determined by the relative position of the negative concord item, as shown in (44).

- (44) a. Ooku-no gakusei-ga dare-mo shinyooshi-nak-atta.  
many-GEN student-NOM who-MO trust-NEG-PAST  
'There were many students who didn't trust anybody.' (many > not)
- b. Dare-mo ooku-no gakusei-ga shinyooshi-nak-atta.  
who-MO many-GEN student-NOM trust-NEG-PAST  
'There was nobody who was trusted by many students.' (not > many)

(45) ... QP<sub>1</sub> ... [<sub>NegP</sub> dare-mo [<sub>VP</sub> ... QP<sub>2</sub> ...] Neg<sup>0</sup>] ...

Raising to Spec,NegP is not needed, however, to account for the data in (44), if we recall that it is not the Neg head but the concord item that carries the meaning of negation, an assumption

<sup>22</sup> Sohn assumes nevertheless that he is dealing with negative polarity, not negative concord.

needed to explain the possibility of elliptical answers (though we have to wait till section 4.4 for a principled account of why this is so). The scope of negation is determined by the position of the negative concord item. For further details that do not concern us for present purposes, see Watanabe 2002a.

Comparison of languages like Modern Greek and Japanese with West Flemish helps highlight the role of the uninterpretable focus feature in the account I am proposing. Consider again (35), repeated here.

- (35) a. . . . da Valère niemand nie (en)-kent  
           that Valère nobody not NEG-know  
           ‘ . . . that Valère doesn’t know anybody’ (negative concord)
- b. . . . da Valère nie niemand (en)-kent  
           that Valère not nobody NEG-know  
           ‘ . . . that Valère doesn’t know nobody’ (double negation)
- c. . . . da Valère an niemand niets nie gezeid eet  
           that Valère to nobody nothing not said has  
           ‘ . . . that Valère didn’t say anything to anyone’ (negative concord)
- d. . . . da Valère an niemand nie niets gezeid eet  
           that Valère to nobody not nothing said has  
           ‘ . . . that Valère didn’t say nothing to anyone’ (double negation)

As suggested in section 4.2, the Neg head in West Flemish has an EPP feature. Furthermore, this EPP feature must be of the kind that allows multiple Specs, to accommodate cases like (35a), where *nie* occupies the inner Spec and *niemand* the outer Spec. The Attract-All nature of this EPP feature forces *niemand* to be raised if it undergoes Agree with the Neg head. This is what happens in (35a). In (35c), both concord items are raised, resulting in the concord reading. Thus, the fact that a concord item fails to be raised to Spec,NegP and yields the double negation reading as in (35b,d) indicates that West Flemish concord items have the option of failing to undergo Agree. Remember that double negation is impossible in the Greek example in (42) and in the Japanese example in (43). Continuing to assume that feature checking is needed for the concord reading, the contrast in the availability of the double negation reading between Modern Greek and Japanese, on the one hand, and West Flemish, on the other, suggests that feature checking for negative concord is obligatory in Modern Greek and Japanese but is optional in West Flemish (as long as the EPP requirement is minimally satisfied by *nie*).

A principled explanation for this parametric variation emerges when we pay attention to the morphological makeup of negative concord items in these three languages. Significantly, the concord items in West Flemish such as *niemand* ‘nobody’ and *geen*-NP ‘no-NP’ do not display focus morphology. In Modern Greek and Japanese, on the other hand, focus morphology (stress in Modern Greek and the particle *mo* in Japanese) is a necessary element of concord items. For this reason, it is possible in West Flemish for a negative quantifier to have an uninterpretable focus feature only optionally, whereas the concord item always has an uninterpretable focus feature in Modern Greek and Japanese. Positing an uninterpretable focus feature thus allows us

to begin to understand why some negative concord systems allow double negation but others do not. The key is the relation between syntactic computation and morphology, a central topic in the Minimalist Program. I investigate the morphology of negative concord more systematically in section 6.

Now, it is time to consider why the Agree operation between neg-features results in the concord reading.

#### 4.4 How to Derive the Concord Reading: Feature Copying

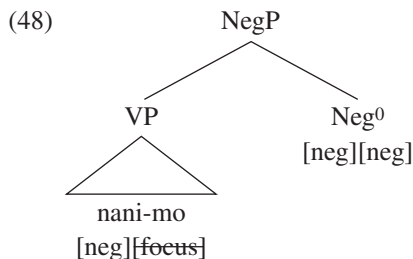
I have shown that some mechanism such as Neg-Factorization is required to nullify the semantic contribution of the interpretable neg-feature of the Neg head, not that of the negative concord item, in order to account for the possibility of elliptical answers. Note that Neg-Factorization is stipulated to apply to the Neg head and the phrases raised to Spec,NegP. But there is a very simple way of achieving the desired result without invoking Neg-Factorization.

I would like to invoke the feature-copying mechanism, which Chomsky (1995, 1998) proposed but later (2000, 2001) abandoned. According to the feature-copying hypothesis, the Agree operation that takes a feature of H as probe and F as goal in (46) produces the structure in (47a), instead of the one in (47b).

- (46) H [ ... [XP ... F ... ] ... ]
- (47) a. [(XP) H + F [ ... [XP ... F ... ] ... ]]  
 b. [(XP) H [ ... [XP ... F ... ] ... ]]

Elsewhere (Watanabe 2000), I present independent empirical evidence from complementizer agreement and switch reference that feature copying is needed in the case of  $\phi$ -feature agreement between the subject and the T head. Results from negative doubling confirm that this mechanism is quite general.

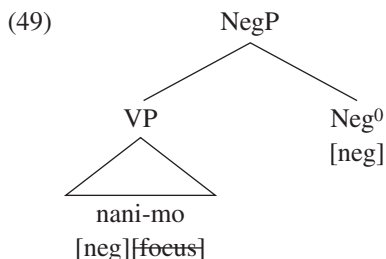
Feature copying produces (48) for the Japanese example in (43), for example.



Significantly, there are two neg-features on the Neg head. Feature copying does not put the copied feature in a hierarchically order with respect to the inherent feature that acts as probe. The two are located within a single head. In (48), the Neg head simply contains two neg-features. A natural interpretation of this situation is that they cancel each other out and mean the same thing as affirmation. The crucial point is that these two neg-features are not hierarchically ordered. If they

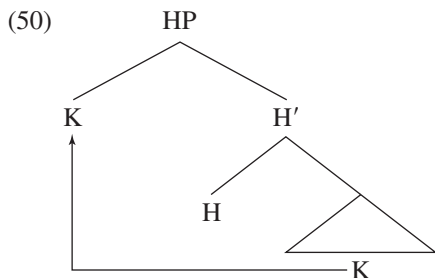
are hierarchically ordered in different places in phrase structure, double negation results, as in the West Flemish example in (35b).

Thus, once we adopt feature copying, it is no longer necessary to stipulate that something like Neg-Factorization deletes the neg-feature of the Neg head. It is an automatic consequence of the Neg head's having two neg-features. In fact, without feature copying, it is impossible under the model where Agree can take place without displacement even to define an interpretive process that deletes the neg-feature of the Neg head. Consider (49), which minimally differs from (48) in lacking feature copying.



For the interpretive system that lies beyond the LF (or conceptual-intentional) interface, (49) is indistinguishable from the structure where no Agree operation takes place between the Neg head and the concord item (when no uninterpretable focus feature is available). Feature copying, therefore, is the only theoretically viable way of nullifying the interpretable neg-feature of the Neg head, once Agree is taken to apply without displacement.

Feature copying has an interesting conceptual consequence as well. Chomsky (2000) eliminates feature copying on the grounds that feature chains are not needed. We can adopt the feature-copying hypothesis, however, without being committed to feature chains. Feature copying in fact provides the conceptual foundation for the notion of occurrences proposed by Chomsky (1995), who defines an occurrence of K as a sister to K. A chain in turn is understood to be a set of occurrences. Consider (50), where K is raised to Spec,HP.

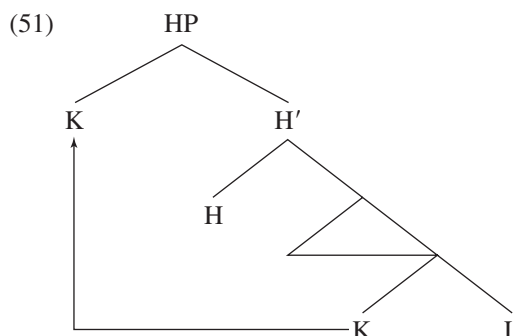


If this raising forms a two-membered chain, there are two occurrences of K, one of which is the syntactic object corresponding to H'. If a feature F of K is copied onto the head H during the Agree operation that lies behind the raising of K to Spec,HP, then H and its projections share this feature F, making it quite natural to identify H' as an occurrence of K. Chomsky (2001)



oscillates between taking K's sister and K's mother as its occurrence, but the choice is immaterial because both are projections of a head that contains F.

If K's position before raising is created by pure Merge, no feature checking is involved and K's sister is not a projection that contains a feature of K. Even in this case, however, there is a featural basis on which to define either K's sister or its mother as its occurrence. Chomsky (2000) suggests that one of the syntactic objects merged together must have a feature (call it the *selector*) to be satisfied in order for Merge to take place, and that the selector for Merge is quite similar to the probe for Agree. If K is merged with L prior to movement as in (51), the selector resides in L.



This selector is shared by L and its mother, so that the occurrence of K in this case can also be defined by the feature that is related to K itself and drives the relevant operation, which is Merge this time.

Thus, feature copying not only derives the desired result for negative doubling but also is conceptually useful in defining chains.

#### 4.5 Ellipsis Resolution and Negative Polarity

To recapitulate the proposed account: Negative doubling arises when the neg-feature of the Neg head agrees with the neg-feature of the negative concord item, prompted by the uninterpretable focus feature of the concord item. The feature-copying mechanism of Agree makes the Neg head semantically equivalent to affirmation, explaining van der Wouden's (1997) intuition that the Neg head in negative doubling acts as the identity function. If concord items have focus morphology, an uninterpretable focus feature always accompanies them, ruling out the possibility of double negation, as in Japanese and Modern Greek. If inherently negative quantifiers always lack an uninterpretable focus feature, they do not (and cannot) undergo checking with a Neg head. When such negative quantifiers cooccur with sentential negation, double negation results. Quantifiers such as *nobody* and *nothing* in Standard English are expressions of this kind.<sup>23</sup> In West Flemish, an

<sup>23</sup> If Kayne's (1998) proposal that negative quantifiers are always raised to Spec,NegP in English is on the right track, the text analysis of English must be abandoned and an alternative must be pursued. The exploration of this issue goes well beyond the scope of this article, however, which aims at providing an account that works for typical negative-doubling cases.

uninterpretable focus feature appears optionally, so that both the double negation and concord readings are allowed, depending on whether feature checking takes place or not.

My account has a further consequence for ellipsis resolution: we must adopt the PF deletion analysis of ellipsis proposed by Chomsky and Lasnik (1993). Consider again the question-answer pair in (31), repeated here.

- (31) Q: Nani-o mita no?  
           what-ACC saw Q  
           ‘What did you see?’  
       A: Nani-mo [mi-nak-atta].  
           what-MO see-NEG-PAST  
           ‘(I saw) nothing.’

If the elided material is provided as part of semantic interpretation, it is too late for checking of the uninterpretable feature carried by the negative concord item *nani-mo*. In (31A), the full syntactic structure including the Neg head must be present during the syntactic derivation and undergo Agree to eliminate the uninterpretable focus feature, with deletion of the bracketed portion taking place at PF. Note that this is the only possible analysis of ellipsis consistent with the system of feature checking espoused by Chomsky (2000, 2001), where the goal should have an uninterpretable feature to be eligible for Agree. The PF deletion analysis is independently argued for by Merchant (2001) on the basis of sluicing. See also Stjepanović 1999 for an argument from Serbo-Croatian. My analysis of negative doubling and elliptical answers renders further support.

The semantic isomorphism condition of Merchant (2001), discussed in section 3.2, is also an important aspect of the analysis. It explains why the presence of NegP in (31A) does not matter for ellipsis resolution.<sup>24</sup> In addition, it explains the impossibility of using a negative polarity item as an elliptical answer, mentioned in section 2 and illustrated again in (52).

- (52) Q: What did you see?  
       A: \*Anything.

Under the PF deletion analysis, (52A) has the following structure:

- (53) [~~I didn't see~~] anything.

Since negative polarity licensing does not involve checking of neg-features, the answer is readily available. Recall from section 2 that negative polarity items can be licensed in nonnegative contexts

<sup>24</sup> One might wonder what enables the semantic isomorphism condition to be sensitive to PF information. We can adapt Merchant's (2001) analysis of sluicing to elliptical answers and state that PF deletion of the complement of FocP in elliptical answers is encoded as a property of the Foc head. But note that the problem goes deeper, since semantic parallelism also applies to cases of deaccenting such as (i), as pointed out by Chomsky and Lasnik (1993).

(i) John said that he was looking for a cat, and so did Bill [say that he was looking for a cat].

Though Merchant argues that the semantic identity condition on ellipsis is more stringent than the parallelism requirement imposed on deaccenting, the point is the same. We need some syntactic mechanism that links PF properties such as deaccenting and ellipsis to semantic interpretation (Chomsky 1995:252). Exploration of these issues, however, must be left to future research.

without producing a negative meaning. It follows that polarity items lack a neg-feature. They lack an uninterpretable focus feature, too.<sup>25</sup> If an uninterpretable focus feature forced feature checking in the negative context, it would be the neg-feature of the Neg head that is to enter into the Agree relation with the negative polarity item. Feature copying, then, would nullify the semantic contribution of the Neg head, incorrectly rendering (52A) grammatical. Without feature checking, the Neg head in the elided part contributes the ordinary negative meaning in (52A)/(53), making it impossible for the elided part to take a positive antecedent.<sup>26</sup>

This completes the proposed syntactic analysis of negative doubling. Before we move on to systematic investigation of its morphological aspects, let us take up negative spread, albeit briefly.

## 5 Negative Spread

So far, we have concentrated on cases where there is only one negative concord item. We also need to consider cases with more than one such item, however, since the term *negative concord* covers these cases as well. A modest goal of this section is to show that negative spread should not receive the same account as negative doubling.

Déprez (2000) observes that cases of negative concord involving an overt Neg head and cases of negative spread differ in a significant way. In contrast to negative doubling, negative spread resists the concord reading when the concord items contain a common noun in Italian, as illustrated in (54). Spanish behaves the same way, according to Déprez.

- (54) a. Nessuno ha letto niente.  
           nobody has read nothing  
           ‘Nobody read anything.’ (negative concord)
- b. Nessuno studente ha letto nessun libro.  
           no student has read no book  
           ‘No student read no book.’ (double negation)
- c. Nessuno ha portato nessun regalo.  
           nobody has brought no present  
           ‘Nobody brought no present.’ (double negation)

The double negation reading in (54b–c) demonstrates that these negative concord items have a negative meaning of their own. The presence of a common noun does not have an effect on negative doubling, however, as shown in (55).

- (55) a. Non ho visto nessuno.  
           NEG have seen nobody  
           ‘I didn’t see anybody.’ (negative concord)

<sup>25</sup> The morphological consequence of this view will be pursued in section 6.2.

<sup>26</sup> An alternative is to say that the preposing of the polarity item to Spec,FocP that is needed for elliptical answers leads to violation of the licensing condition (c-command by negation) for negative polarity. In contrast, negative concord items can be raised beyond negation once checking is done.

- b. Non ho letto nessun libro d'èsta lista.  
 NEG have read no book of this list  
 'I didn't read any book on the list.' (negative concord)

The concord reading in (55) is derived from feature copying under my analysis. For the contrast between (54a) and (54b–c), Déprez suggests the relevance of the DP-internal structure. What matters here is the contrast between (54b–c) and (55b). The obligatory double negation reading in (54b–c) demonstrates that negative spread cases like those in (54) involve a mechanism that is not used in negative doubling cases like those in (55). Neg-Factorization is a good candidate for that mechanism. One can regard the polyadic quantification approach of de Swart and Sag (2002), which develops the proposal by May (1989), as a formalization of the residue of Neg-Factorization needed for negative spread.<sup>27</sup>

Haegeman and Zanuttini (1996) point out something similar for West Flemish. Here again, negative quantifiers containing a common noun do not undergo Neg-Factorization with the sentential negation marker *nie*, in contrast to bare negative concord items such as *niemand* 'nobody', as shown in (56).

- (56) a. . . . da Valère geen boeken nie gelezen eet  
 that Valère no books not read has  
 ' . . . that there are no books that Valère has not read' (double negation)  
 b. . . . da Valère niemand nie kent  
 that Valère nobody not know  
 ' . . . that Valère doesn't know anybody' (negative concord)

The problem is caused by the direct interaction between *geen* N 'no N' and *nie* in Neg-Factorization, or some such mechanism. Haegeman and Zanuttini observe that negative concord arises without any problem when *nie* is absent, as in (57a), or when a bare negative concord item intervenes between *geen* N and *nie*, as in (57b).

- (57) a. . . . da Valère geen broers (en)-eet  
 that Valère no brothers NEG-has  
 ' . . . that Valère doesn't have any brothers' (negative concord)  
 b. . . . dan'k an geneen student niets nie goan geven  
 that I to no student nothing not go give  
 ' . . . that I won't give anything to any student' (negative concord)

Recall that negative concord is automatic in cases like (57a) because of feature copying onto the Neg head. Thus, (56b) is strictly speaking an instance of negative spread, not negative doubling. As for the contrast in (56), Haegeman and Zanuttini (1996) also suggest that the internal structure of DP is relevant.

<sup>27</sup> The polyadic quantification approach is extended by de Swart and Sag to cases of negative doubling. This extension is not justified, given my treatment of negative doubling.

We are therefore led to conclude that negative doubling and negative spread should be treated differently. There is a significant difference between the two phenomena. Something like Neg-Factorization or the polyadic quantification approach of de Swart and Sag (2002) is needed to handle the neg-features of multiple negative concord items in negative spread. This mechanism must be part of semantic interpretation, lying outside the syntactic computation, since it must eliminate interpretable neg-features. It goes well beyond the scope of this article, however, to investigate why this mechanism does not apply in (54b–c) and (56a). See the references cited.

## 6 Morphological Ingredients of Negative Concord Items

Under my proposal, the Agree operation between the Neg head and a negative concord item involves three features: two interpretable neg-features and an uninterpretable focus feature. Feature copying cancels the ordinary semantic contribution of the Neg head. In this section, I take up the morphological realization of the interpretable neg-feature and the uninterpretable focus feature that a negative concord item possesses. My hypothesis so far is primarily motivated by looking at Japanese, and by comparing it with Modern Greek and West Flemish. In considering the morphology of negative concord items, it is important to broaden the empirical coverage to include other languages. The null hypothesis from the perspective of Universal Grammar (UG) is that the proposed analysis should apply to any language where the cooccurrence of NegP and another inherently negative expression can fail to yield double negation. This restrictiveness argument from UG urges us to extend the same analysis to Romance languages and others.<sup>28</sup>

One of the major claims in this section is that negative concord items across languages should be classified into two major categories, depending on whether focus morphology is visible or not. The presence of focus morphology is linked to the presence of an uninterpretable focus feature, forcing the Agree operation that involves neg-features. Thus, when focus morphology is present, licensing by something other than negation becomes impossible. Japanese and Modern Greek support this generalization. When focus morphology is absent, two further possibilities arise. First, if the neg-feature itself can be absent together with an uninterpretable focus feature, licensing by something other than negation becomes possible. This is the situation in some Romance languages, for example. The descriptive generalization I would like to put forth here is that negative concord items can also be licensed by something other than negation only when they lack focus morphology. Second, if the neg-feature itself is always present, licensing by a nonnegative element does not arise, but the presence of the Neg head is not required in the absence of an uninterpretable focus feature. West Flemish exemplifies this case.

We also need to consider what actually counts as focus morphology in the relevant sense. I suggest that what looks like a scalar focus particle carries an uninterpretable focus feature only when it is part of a minimizer expression or is attached to an indeterminate.

<sup>28</sup> For this reason as well, Déprez's (1999, 2000) "numeral zero" analysis of French, mentioned in footnote 10, cannot be adopted. Unlike my proposal, this analysis will not shed new light on the dual status of some Romance concord items, to be discussed in section 6.2.

Throughout the discussion of these points, it should be kept in mind that the relation between morphology and syntax is indirect. The mere presence of a particular morphological piece does not dictate the presence of a particular formal feature. At the same time, a particular formal feature sometimes fails to be realized morphologically (witness the structural Case of common nouns in English). In both of these situations, the context in which the morphological piece or the formal feature in question is found plays a significant role. For the purposes of this article, that context is an occurrence in a negative sentence.

To give content to these claims, I start with licensing in nonnegative contexts in section 6.1. In section 6.2, I take up various languages including Romance that exhibit negative doubling, focusing particularly on those concord systems that do not display focus morphology. In section 6.3, I compare Japanese with languages such as Hindi and Basque that do not have negative doubling, to delineate the role that the indeterminate and minimizer systems play in the formation of negative concord items.

### 6.1 *Nonnegative Contexts*

Once the syntactic nature of negative doubling is accounted for in terms of the Agree operation involving two interpretable negative features, one of the tests discussed in section 2 falls into place. There, inability to appear in nonnegative contexts such as conditionals and yes-no questions was listed as one indication of negative concord as opposed to negative polarity. Examples (8) and (9) illustrating English *any* and the Japanese and Spanish concord items are repeated here.

- (58) a. Have you seen anything?  
       b. \*Nani-mo mi-mashi-ta ka?  
           what-MO see-POLITE-PAST Q  
           ‘Have you seen anything?’  
       c. \*¿Quieres nada?  
           want-2SG nothing  
           ‘Do you want anything?’
- (59) a. If John steals anything, he’ll be arrested.  
       b. \*John-ga (moshi) nani-mo nusun-dara, taihos-areru daroo.  
           John-NOM if what-MO steal-COND arrest-PASS be-will  
           ‘If John steals anything, he’ll be arrested.’  
       c. \*Si quieres nada, avísame.  
           if want-2SG nothing warn-2SG-IMP.me  
           ‘If you want anything, let me know.’

Since these nonnegative contexts do not provide a negative feature, the negative concord item cannot undergo Agree in the absence of NegP, failing to eliminate the uninterpretable focus feature. The negative polarity item, which can appear in these nonnegative contexts without producing a negative meaning, should be analyzed as a nonnegative indefinite that requires licensing.

As a reviewer points out, West Flemish allows a concord item in these contexts, but only with a negative meaning, as in (60).<sup>29</sup>

- (60) a. Ee-je      niemand gezien?  
           have-you nobody seen  
           'Did you see no one?'  
       b. Oa-j    tegen    niemand klaapt, goan-k jen    buten smiten.  
           if-you against nobody talk    go-I    you out    throw  
           'If you talk to no one, I will throw you out.'

This result is consistent with the point of the nonnegative context test, which is to see whether the expression in question can be licensed in these contexts with a nonnegative interpretation. The acceptability of (60a–b) in contrast to the ill-formedness of (58b–c) and (59b–c) is also expected. The Neg head can be null in West Flemish. Another option is available, too. Remember from section 4.3 that the uninterpretable focus feature is attached to a concord item in West Flemish only optionally. Remember also that the optionality of an uninterpretable focus feature is correlated with the fact that West Flemish negative concord items do not display focus morphology. It is then predicted that a negative concord item does not need a Neg head for checking in West Flemish. And in fact, a West Flemish negative concord item can appear without any accompanying negative expression in ordinary clauses, as in (61).

- (61) a. . . . da Valère [PP me niets] ketent (en)-was  
           that Valère with nothing contented NEG-was  
           '. . . that Valère wasn't pleased with anything'  
       b. . . . da Valère ketent [PP me niets] (\*en)-was  
           that Valère contented with nothing NEG-was

(61b) in fact disallows the presence of NegP, because the EPP feature of the Neg head would not be satisfied. Haegeman (1995:130) observes that in (61b), negation does not have sentential scope, suggesting that the concord expression must be raised to Spec,NegP as in (61a) to obtain sentential scope; but what is important for us is that (61b) is well formed under the denial reading. Nothing of that sort is possible in Japanese. (5b), discussed in section 2 and repeated here, remains unacceptable, no matter what reading is tried.

- (5) b. \*John-wa nani-mo tabe-ta.  
           John-TOP what-MO eat-PAST

It is reasonable to conclude that the presence or absence of focus morphology is correlated with this difference between West Flemish and Japanese. The presence of focus morphology in Japanese concord items is an indication of an uninterpretable focus feature, which requires checking with a Neg head.

<sup>29</sup> (60a) is provided by courtesy of the reviewer. (60b) is from Haegeman 1997.

## 6.2 Ambiguity in Romance

Many researchers, including Giannakidou (to appear), Herburger (2001), Longobardi (1991), and Vallduví (1994), express the view that some Romance expressions are ambiguous between negative concord and negative polarity items. This means that some negative concord items can be licensed in a nonnegative context as well without producing a negative meaning. The Catalan examples in (62), taken from Martins 2000, show that *ningú* and *cap* can be licensed in yes-no questions and conditionals without negative meaning.

- (62) a. Ha vingut ningú aquesta tarda?  
           has come nobody this afternoon  
           ‘Did anybody come this afternoon?’  
       b. Si hi trobeu cap defecte, digueu-m’ ho.  
           if in-it find-2SG no defect tell-me about-it  
           ‘If you find any defect, let me know.’

They can stand alone as an elliptical answer, however, as illustrated for *ningú* by Vallduví’s (1994) example in (63).

- (63) Q: Qui has vist?  
           who have-2SG seen  
           ‘Who did you see?’  
       A: Ningú.  
           nobody

The Catalan concord items thus contrast with their Spanish counterparts, which are restricted to licensing by negation. At the same time, Vallduví (1994) notes that there is a dialect of Spanish that is like Catalan, observing speaker variation with respect to whether negative concord items can appear in nonnegative contexts.

Ambiguity of this kind is not limited to Romance. The elliptical answer test shows that Haitian Creole expressions such as *pèsonn* and *anyen* in (64), taken from Déprez 1999, are inherently negative, because they can stand alone as an elliptical answer as in (65) according to DeGraff (1993).<sup>30</sup>

- (64) a. M \*(pa) te wè pèsonn/anyen.  
           I NEG PAST see no one/nothing  
           ‘I haven’t seen anyone/anything.’  
       b. Pèsonn/Anyen \*(pa) rive.  
           no one/nothing NEG arrive  
           ‘No one arrived/Nothing happened.’

<sup>30</sup> Déprez’s (1999, 2000) analysis, which regards them as nonnegative indefinites, cannot be maintained. Déprez (1999:408) takes up this problem but does not provide an adequate solution. Déprez also claims that Haitian concord items need to be bound by a negation operator. This requirement, however, is not met in (64b), apparently.



- (65) a. Q: Kimoun ki wè ou?  
           who           see you  
           ‘Who saw you?’

A: Pèsonn.  
      no one

- b. Q: Kisa ou manje?  
      what you eat  
      ‘What did you eat?’

A: Anyen.  
      nothing

Déprez (1999) observes, however, that *pèsonn* and *anyen* are allowed in yes-no questions, as in (66).<sup>31</sup>

- (66) a. Èske pèsonn rele m?  
          Q   no one call me  
          ‘Did anyone call me?’  
      b. Èske ou te wè anyen?  
          Q   you PAST see nothing  
          ‘Did you see anything?’

For these cases, we must conclude that *pèsonn* and *anyen* are functioning as negative polarity items, which are not negative in meaning.

In Romanian and Portuguese, on the other hand, negative concord items are confined to the negative context. The Romanian expressions are exemplified in (67), from Martins 2000.

- (67) a. Nimeni \*(nu) a venit la petrecere.  
          nobody NEG has come to the-party  
          ‘Nobody came to the party.’  
      b. \*Ai văzut nimic?  
          have-2SG seen nothing  
          ‘Have you seen anything?’  
      c. \*Dacă ai nevoie de nimic, spune-mi.  
          if have-2SG necessity of nothing tell-me  
          ‘If you need anything, let me know.’

In the languages discussed so far, namely, Catalan, Spanish, Romanian, Portuguese, and Haitian Creole, no systematic focus morphology is found on negative concord items, except perhaps for Romanian. Consider (68), where the representative negative concord expressions in the Romance languages (collected from Haspelmath 1997) and those in West Flemish (from Haegeman and Zanuttini 1996) are presented.

<sup>31</sup> Déprez notes that (66a), but not (66b), is unacceptable for speakers of the Port-au-Prince dialect.

(68)	Romanian	Portuguese	Spanish	Catalan
Person	nimeni	ninguém	nadie	ningú
Thing	nimic	nada	nada	res
Place	nicăieri	nenhures	en ninguna parte	enlloc
Time	niciodată, nici-cînd	nunca, jamais	nunca	mai
	French	Italian	West Flemish	
Person	personne	nessuno	niemand	
Thing	rien	niente, nulla	niets	
Place	nulle part	in nessun luogo	nieverst	
Time	jamais	mai	nooit	

Though French and Italian example sentences are omitted here for space reasons, the concord items in these languages can appear in nonnegative contexts to varying degrees (questions and conditionals in French, questions only in Italian), according to Haspelmath (1997). See also Acquaviva 1999 for details about Italian. As for Romanian, Haspelmath (1997:264) notes that some of the concord expressions are derived from *nici* 'not even' plus an indeterminate or general noun.

When we turn to concord items that systematically display focus morphology, a consistent pattern emerges. Russian has negative concord items formed by adding the prefix *ni-* to a *wh*-phrase. The representative Russian concord items together with related expressions are given in (69).

(69) *Russian (based on Haspelmath 1997)*

	Interrogative	Existential	Concord
Person	kto	kto-to	ni-kto
Thing	čto	čto-to	ni-čto
Place	gde	gde-to	ni-gde
Time	kogda	kogda-to	ni-kogda

The concord nature of the *ni*-series can be seen from the obligatory presence of the Neg head and the ability to stand alone in the question-answer pair, as shown in (70) from Brown 1999.

- (70) a. Ja \*(ne) videl ni-kogo.  
           I     NEG saw   no one  
           'I saw no one.'  
       b. Ni-kto \*(ne) zvonil.  
           no one   NEG called  
           'No one called.'

- c. Q: Kogo ty videl?  
       who you saw  
       ‘Who did you see?’  
 A: Ni-kogo.  
       no one

The Russian negative concord items are confined to the negative context, according to Brown (1999) and Haspelmath (1997). They cannot appear in a yes-no question without the help of negation, for example, as illustrated in (71).

- (71) \*Ni-kto zvonil?  
       no one called  
       ‘Did anyone call?’

Haspelmath (1997) analyzes the prefix *ni* as derived from the negation *ne* and the scalar particle *i* meaning ‘even’. Thus, it is an appropriate item to host an uninterpretable focus feature, which disallows occurrence in nonnegative contexts.

A striking confirmation that the presence of focus morphology blocks occurrence in nonnegative contexts comes from Romance minimizers, discussed in detail by Vallduví (1994). In contrast to ordinary negative concord items, minimizers can be associated with focus morphology, which is obligatory in Catalan and optional in Spanish. Let us first look at Catalan, where the contrast with the ordinary negative concord items in (62) is very sharp. The focus morphology in question is *ni*, meaning ‘not even’, as in (72).

- (72) No vaig trobar ni ton oncle.  
       NEG PAST-1SG find NI your uncle  
       ‘I didn’t even find your uncle.’

The inherently negative nature of minimizers is shown by the elliptical answer in (73b).

- (73) a. No va dir \*(ni) una paraula.  
       NEG PAST-3SG say NI a word  
       ‘She/He didn’t say a word.’  
       b. Q: I què en va dir, d’allà?  
           and what of-it PAST-3SG say of-that  
           ‘And what did she/he say about that?’  
       A: Ni una paraula.  
           NI a word  
           ‘Not a word.’

The Catalan minimizers cannot appear in nonnegative contexts, as illustrated in (74).

- (74) a. \*Que va dir ni una paraula?  
       Q PAST-3SG say NI a word  
       ‘Did she/he say a word?’

- b. \*Si li            toca            ni un pèl, avisa'm.  
      if DAT-3SG touch-3SG NI a    hair warn-2SG-IMP.me  
      'If she/he touches him/her at all, let me know.'

The optional presence of *ni* in Spanish, illustrated in (75a), is instructive, too.

- (75) a. No dijo        (ni) una palabra.  
      NEG said-3SG NI a    word  
      'She/He didn't say a word.'
- b. Q: ¿Y qué dijo?  
      and what said-3SG  
      'And what did he say?'
- A: \*(Ni) una palabra.  
      NI a    word  
      'Not a word.'

This focus morphology is obligatory in elliptical answers, as shown by (75b). Furthermore, occurrence in nonnegative contexts is incompatible with *ni*, as demonstrated in (76).

- (76) a. Le            tocaste        (\*ni) un pelo?  
      DAT-3SG touched-2SG NI a    hair  
      'Did you touch her/him at all?'
- b. Si le            toca        (\*ni) un pelo, avísame.  
      if DAT-3SG touch-3SG NI a    hair warn-2SG-IMP.me  
      'If she/he touches him/her at all, let me know.'

Interestingly, modifiability by expressions like 'almost', discussed in section 2, correlates with the presence of *ni*, as (77) indicates.

- (77) No se come casi \*(ni) una rosca.  
      NEG self eat-3SG almost NI a    doughnut  
      'She/He almost never scores.'

From data of these kinds, Vallduví concludes that minimizers with *ni* are concord expressions, whereas those without *ni* are negative polarity items.

(78) summarizes the data on the nonnegative licensing of negative concord items and the presence of focus morphology from the languages discussed here. It is very important to note that in all the cases that systematically use some focus morphology, occurrence in nonnegative contexts is ruled out. This morphology is recruitment of a scalar particle in Japanese, Russian, and Romance minimizers, and less systematically, in Romanian. It is stress in Modern Greek. It is true that the scalar particle is combined with a negative element in Russian, Romance minimizers, and Romanian, but there is no negative morphology in the Japanese *wh + mo* expressions or in the concord items in Modern Greek. Thus, it is the focus morphology that is directly linked

to the presence of an uninterpretable focus feature, which in turn induces checking with a Neg head and prohibits occurrence in nonnegative contexts. No account proposed in the expanding literature on negative concord has anything to say about this morphological generalization.

(78) *Focus morphology and nonnegative licensing of concord items*

	Focus morphology	Nonnegative licensing
Japanese	yes	no
Modern Greek	yes	no
Russian	yes	no
Romance minimizers	yes	no
Romanian	yes/no	no
Portuguese	no	no
West Flemish	no	no
Spanish	no	no ~ yes
Italian	no	yes
French	no	yes
Catalan	no	yes
Haitian Creole	no	yes

The absence of negative morphology does not matter. The range of feature checking prompted by an uninterpretable focus feature is quite limited: *wh*-question, focus movement, and negative concord.<sup>32</sup> As long as negative polarity licensing does not employ checking of a neg-feature, the context makes it clear that negative concord and hence neg-features are involved in the Agree operation forced by an uninterpretable focus feature.

What about languages like Portuguese, West Flemish, and some dialects of Spanish where the concord expressions are confined to negative contexts despite the absence of focus morphology? In general, the morphophonological realization of formal features does not have to be overt, and focus morphology is no exception. In English, overt morphology of structural Case, for example, is limited to personal pronouns and is not found on ordinary nouns, even though structural Case is considered to be the driving force for A-movement of DP that contains an ordinary noun. The same is true with focus and negative morphology. Formal features such as an uninterpretable focus feature and a neg-feature can be present during the syntactic derivation without necessarily being realized morphologically. In fact, the neg-feature of concord items cannot be realized

<sup>32</sup> And maybe some more  $\bar{A}$ -constructions as well.

morphologically, since it is interpretable at the LF end of the derivation. It is only uninterpretable features that are sent to PF at Spell-Out and can be morphologically realized there.<sup>33</sup>

Among the languages whose concord items do not display focus morphology, however, there seems to be a tendency that the more or less systematic presence of negative morphology, the nasal *n* in Romance and West Flemish,<sup>34</sup> disallows nonnegative licensing. But this is only a tendency, as shown by the facts that there is speaker variation in Spanish and that although the nasal morpheme is more or less consistent in the Italian paradigm in (68), Italian allows licensing by yes-no questions. The reason that this can only be a tendency is that by hypothesis, the interpretable neg-feature will not be realized morphologically. Thus, negative morphology is not useful in identifying negative concord items, since it is not the morphological realization of the interpretable neg-feature. It is something else, whatever it is. After all, the nasal sound itself is not necessarily a morpheme.

Focus morphology is different. Stress in Modern Greek and the Japanese particle *mo*, for example, have a life of their own quite independent of negative concord. For Modern Greek, see Tsimpli and Roussou 1996. The Japanese particle will be taken up momentarily. Negative concord expressions borrow the morphophonological aspects of these independently existing items, so to speak, and encode them as an uninterpretable focus feature.

As Vallduví (1994) and Haspelmath (1997:232–233) point out, historical accidents have brought together heterogeneous expressions as a class of negative concord items in Romance. They suggest that as a relic of these historical accidents, the negative polarity use of these items still survives in some cases. Something similar can be said about Haitian, a French-based creole. The discussion in section 4.5 leads to the conclusion that from the perspective of the analysis proposed here, the negative polarity use of these expressions involves neither a neg-feature nor an uninterpretable focus feature, unlike their negative concord use. The absence of focus morphology from the expressions with dual status is consistent with this view of negative polarity.

### 6.3 *How to Distinguish between Concord and Polarity Items Morphologically*

In the discussion so far, the uninterpretable feature that drives checking in negative concord is identified as focus-related. The morphophonological realization of that feature in Japanese is *mo*, which is also used as a focus particle meaning ‘even’ and ‘also’. We have just seen that focus morphology is directly linked to the presence of an uninterpretable focus feature, which forces checking with a Neg head. Here, I will show that attaching such a focus particle actually is not sufficient to form a negative concord item. Another characteristic property of Japanese, the existence of an indeterminate system, must be taken into account to obtain a full picture of the syntax-morphology relation in negative concord. For this purpose, I compare Japanese with languages

<sup>33</sup> A reviewer questions the assumption that only uninterpretable features are sent to PF at Spell-Out, on the grounds that plural morphology in nominals is associated with semantic interpretation. A direction to pursue in solving this problem is to posit an agreement relation within DP between an interpretable number feature and an uninterpretable number feature. The latter is responsible for the visible morphology. This analysis is not implausible, given an overt form of agreement in cases like *those books*. A fuller discussion of this point, however, must wait for another occasion.

<sup>34</sup> Hence the term *n-words* invented by Laka (1990).

lacking negative concord such as Hindi and Basque, which minimally differ from Japanese in the relevant respect in distinct ways. Let us start with Hindi.

*6.3.1 Negative Polarity in Hindi* Lahiri (1998) argues that the semantics of *even* explains the distribution of negative polarity items in Hindi, which are composed of an indefinite and a particle *bhii*. This particle is ambiguous between ‘even’ and ‘also’, as shown in (79).

- (79) *raam bhii aayaa.*  
 Ram BHII came  
 ‘Even Ram came.’  
 ‘Ram also came.’

Lahiri observes that the ‘even’ reading of (79) is obtained when *raam* is focused. In this respect, the Japanese particle *mo*, illustrated in (80), behaves the same way.

- (80) *John-mo kita.*  
 John-MO came.  
 ‘Even John came.’  
 ‘John also came.’

The ‘even’ reading, again, is obtained when *John* is stressed.<sup>35</sup>

In Hindi, the particle *bhii* attaches to a simple existential quantifier to form a negative polarity item. In (81), *bhii* is combined with an existential quantifier, *kuch*.

- (81) a. *maiN-ne kuch bhii nahiiN khaayaa.*<sup>36</sup>  
 I-ERG anything not ate  
 ‘I didn’t eat anything.’  
 b. *\*maiN-ne kuch bhii khaayaa.*  
 I-ERG anything ate  
 ‘I ate anything.’

That we are dealing with negative polarity, not negative concord, is suggested by the fact that these items are licensed in nonnegative contexts as well. (82) illustrates their use in conditionals and questions.

- (82) a. *agar raam kuch bhii paRhega, to use sar dard hone lagega.*  
 if Ram anything read-FUT then him headache happen  
 ‘If Ram reads anything, he will get a headache.’

<sup>35</sup> Japanese has another, related focus particle *demo*, which is restricted to the ‘even’ reading in the modal context.

(i) *John-demo kono mondai-wa tok-eru.*  
 John-even this problem-TOP solve-can  
 ‘Even John can solve this problem.’

<sup>36</sup> One might wonder whether negation c-commands the polarity item in (81a). See Mahajan 1990 as well as Lahiri 1998 for discussion.

- b. tumheN kuch bhii pasand aayii kyaa?  
 you anything like Q  
 'Did you like anything?'

The crucial test is inability to appear in elliptical answers. Haspelmath (1997) observes that Hindi negative polarity items cannot appear in elliptical answers. (83) illustrates this point.<sup>37</sup>

- (83) Q: raam-ne kyaa khaayaa?  
 Ram-ERG what ate  
 'What did Ram eat?'  
 A: \*kuch bhii.  
 anything

Lahiri (1998) claims that the scalar semantics of *bhii* and the minimal, weakest predicate character of the indefinite explain the distribution of the negative polarity items in Hindi. Rullmann (1996) observes that the Dutch negative polarity item consisting of an indefinite and the scalar expression *ook maar* 'even' should receive essentially the same analysis (cf. Hoeksema and Rullmann 2001). The idea of relating negative polarity and scalar semantics goes back to Fauconnier 1975. Lee and Horn (1994) propose to analyze English *any* as an indefinite plus *even*.<sup>38</sup>

If semantics were all there is, one would expect the same analysis to apply to the Japanese negative concord items, because they also consist of an indefinite part and the scalar focus particle meaning 'even'. In other words, they are expected to behave the same way. As the data in section 2 indicate, however, this prediction is not borne out. The Japanese negative concord item can stand alone as an elliptical answer, as in (84).

- (84) Q: Nani-o mita no?  
 what-ACC saw Q  
 'What did you see?'  
 A: Nani-mo.  
 what-MO  
 'Nothing.'

They cannot appear in nonnegative contexts such as interrogatives and conditionals, as shown in (85) and (86).

- (85) \*Nani-mo mi-mashi-ta ka?  
 what-MO see-POLITE-PAST Q  
 'Have you seen anything?'

<sup>37</sup> Thanks are due to Anoop Mahajan (personal communication) for confirming this judgment.

<sup>38</sup> See Heim 1984, however, on the nonequivalence of English *any* to an indefinite plus *even*. Rullmann (1996) discusses another class of negative polarity items in Dutch consisting of a *wh*-phrase and *dan ook* 'then also' that do not explicitly contain a particle meaning 'even' and that behave somewhat differently from the *ook maar* negative polarity item.



- (86) \*John-ga (moshi) nani-mo nusun-dara, taihos-areru daroo.  
 John-NOM if what-MO steal-COND arrest-PASS be-will  
 'If John steals anything, he'll be arrested.'

These differences are explained if we assume that the Japanese counterpart is inherently negative and requires feature checking. The question-answer pair in (84) is licit, because feature checking turns the Neg head into the semantic equivalent of affirmation. The Japanese counterpart is disallowed in nonnegative contexts, because the neg-feature of the concord item cannot undergo Agree with a nonnegative feature, leaving behind the uninterpretable focus feature, which causes the derivation to crash. We are led to conclude that the syntactic property of the Japanese expression plays a key role. At this point, the question arises why the Hindi expression and its Japanese counterpart differ syntactically, despite their apparent morphosemantic similarity. Why is an additional syntactic requirement imposed on the Japanese expression, which induces feature checking? Is this an arbitrary parametric choice, or is there a deeper reason for the difference? The situation becomes all the more puzzling once we recall that the focus particle *mo* in Japanese is considered to be the location of the uninterpretable focus feature that drives checking. Why is its Hindi counterpart *bhii* unable to induce checking that lies behind negative concord?

6.3.2 *Morphosyntax* I would like to suggest that there is in fact a corresponding morphological difference between the Hindi and Japanese expressions. The crucial difference is that while the Hindi negative polarity item is created by adding the scalar focus particle to a simple existential quantifier, the Japanese negative concord item is uniformly based on a *wh*-phrase. Compare the two systems shown in (87) and (88).

- (87) *Hindi (based on Haspelmath 1997)*

	Interrogative	Existential	Polarity
Person	kOn	koi	koi bhii
Thing	kyaa	kuch	kuch bhii
Place	kahaaN	kahiiN	kahiiN bhii
Time	kab	kabhii	kabhii bhii

- (88) *Japanese*

	Interrogative	Existential	Concord
Person	dare	dare-ka	dare-mo
Thing	nani	nani-ka	nani-mo
Place	doko	doko-ka	doko-mo
Time	itsu	itsu-ka	—

In Japanese, the entire series of both the existential quantifiers and the negative concord items are created by adding a common particle (*ka* for existential and *mo* for negative concord) to a *wh*-expression, forming an *indeterminate* system. The *wh*-part is called an indeterminate. In Hindi,

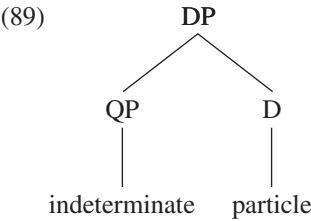
in contrast, there is no transparent, systematic relation between *wh*-phrases on the one hand and existential and polarity items on the other. The Hindi non-*wh* quantifier is not created by adding a common particle to a *wh*-phrase, unlike its Japanese counterpart. A reviewer suggests that *kah* for place and *kab* for time might be isolated as the common *wh*-part, but this analysis fails to identify the common particle that produces the existential use. Moreover, *kah* itself is not even a *wh*-phrase. The suggested analysis does not work for the person and thing expressions, either.

The crucial observation is that there is a correlation between the concord/polarity distinction and the morphological shape of the items in question. I propose that the scalar focus particle meaning ‘even’ can participate in checking only when it is part of the indeterminate system exemplified by Japanese. The Russian concord items are also based on an indeterminate system. See (69), repeated here.

(69) *Russian (based on Haspelmath 1997)*

	Interrogative	Existential	Concord
Person	kto	kto-to	ni-kto
Thing	čto	čto-to	ni-čto
Place	gde	gde-to	ni-gde
Time	kogda	kogda-to	ni-kogda

Suppose, following the proposal in Watanabe 1992, that the three kinds of Japanese expressions in (88) share the structure in (89) (also see Takahashi 2002).



The indeterminate is the part common to the three types. The uninterpretable focus feature that drives feature checking in *wh*-questions and in negative concord resides in the D head. The D head is phonologically null in *wh*-phrases and is realized as *mo* in negative concord. The particle *mo* ceases to be a real focus particle once it occupies the D head position. See Watanabe 2002b for an in-depth discussion of the internal structure of DP in Japanese.

The Hindi negative polarity items, on the other hand, do not have this structure. I simply assume that the focus particle *bhii* continues to be a focus particle even when it is attached to an existential quantifier. Here, I am also assuming that the scalar focus particle cannot bear an uninterpretable focus feature unless it ceases to be one by functioning as D. This assumption plays a crucial role in accounting for why the Hindi expression formed by adding the focus particle *bhii* to an existential quantifier does not act as a concord item. Is this assumption justified?

Evidence from Hungarian confirms that it is. It is well known (see Puskás 2000 and the references cited there) that a focused expression is raised to the immediately preverbal position

in Hungarian. É. Kiss (1998) observes that an ‘even’ phrase cannot occupy this position. In (90b), the ‘even’ phrase circumscribed by *még . . . is* is placed in the preverbal focus position, leading to ungrammaticality.

- (90) a. Mari egy kalapot nézett ki magának.  
 Mary a hat-ACC picked out herself-to  
 ‘It was a hat that Mary picked for herself.’  
 b. \*Mari még egy kalapot is nézett ki magának.  
 Mary even a hat-ACC also picked out herself-to  
 ‘It was even a hat that Mary picked for herself.’

É. Kiss (1998) analyzes focus preposing as movement to Spec,FocusP.<sup>39</sup> *Wh*-movement also targets this position in Hungarian.<sup>40</sup> The failure of an ‘even’ phrase to appear in that position is consistent with the assumption that the scalar focus particle as such cannot bear an uninterpretable focus feature.

To summarize, one morphophonological realization of the uninterpretable focus feature in the negative concord system takes the form of a scalar particle meaning ‘even’ attached to an indeterminate element. Thus, the presence of an indeterminate system is a prerequisite to this type of negative concord.

Before moving on, let me mention one issue, brought to my attention by a reviewer, in relation to my treatment of indeterminates. It is controversial whether Slavic languages that have no overt articles, such as Russian and Serbo-Croatian (to be discussed in section 6.3.5), have DP. Significant in this connection is the possibility of left branch extraction of attributive adjectives, which is allowed in those article-less Slavic languages, but not in Bulgarian and Macedonian, which have suffixal definite articles (see, e.g., Tomić 1996 for the suffixal definite articles in the latter two languages). Bošković (2003) argues that the presence of DP blocks it and therefore that the article-less Slavic languages must lack DP, an idea that goes back to Uriagereka 1988. Kennedy and Merchant (2000), however, argue that what blocks extraction is not DP but a still higher functional projection. Bošković also leaves open an alternative possibility that scrambling holds the key, on the basis of the observation that lack of overt articles and availability of scrambling are correlated (see Bošković 2004 for an account of this correlation). We are driven to the latter two possibilities, though further exploration must be left to future research.<sup>41</sup>

<sup>39</sup> This analysis was originally proposed by Brody (1990) and is also adopted by Puskás (2000). É. Kiss (1998) proposes that the English cleft should be analyzed the same way. Interestingly, É. Kiss observes that *even* is disallowed in the focus position of the English cleft, as in (i).

(i) \*It was even John that Mary invited to her birthday party.

<sup>40</sup> Or universally, if Rizzi’s (1997) proposal is on the right track. Old Japanese behaves the same way as Hungarian in having overt focus movement and *wh*-movement target the same position. See Watanabe 2002c. But see also Bošković 2002, where it is argued that *wh*-movement and focus movement of *wh*-phrases must be distinguished in Slavic.

<sup>41</sup> I should also mention that there are researchers like Progovac (1998) who posit DP in article-less Slavic languages. For further references on the issue, see Bošković 2003. See also footnote 45 for one consideration that favors the treatment of a particle attached to an indeterminate as D. Citko (2004) also analyzes these particles in Polish as D on independent grounds.

6.3.3 *The Significance of Combining an Indeterminate with a Scalar Focus Particle* It is assumed above that the uninterpretable focus feature is located in D, not in the indeterminate element itself. This makes sense because there is no reason to assume that the existential quantifier based on an indeterminate requires feature checking. This hypothesis also receives support from comparison with Basque.

The Basque negative polarity items, illustrated by examples from Laka 1990 in (91), participate in an indeterminate system.

- (91) a. Ez da i-nor etorri.  
NEG has anybody come  
'Nobody came.'  
b. \*I-nor etorri da.  
anybody come has

(92) shows the partial paradigm of Basque indeterminates.

(92) *Basque (from Haspelmath 1997)*

	Interrogative	Existential	Polarity
Person	nor	nor-bait	i-nor
Thing	zer	zer-bait	e-zer
Place	non	non-bait	i-non
Time	noiz	noiz-bait	i-noiz

The Basque polarity series is interesting because it is similar to the Japanese concord item in being based on a *wh*-phrase (or an indeterminate, strictly speaking); but it differs from the Japanese item in that the *i*-prefix has no independent use in Basque.<sup>42</sup>

That we are dealing with negative polarity in Basque is confirmed by the fact that the elliptical answer is impossible, as illustrated in (93).

Incidentally, Modern Greek apparently allows extraction of an attributive adjective out of DP by means of focus movement, as in (i).

(i) To KOKINO efera (to) forema.  
the red brought-1SG the dress  
'It is the RED dress that I brought.'

Note that Modern Greek has an overt definite article. Androutsopoulou (2001) gives the version of (i) without the prenominal article in parentheses, while Horrocks and Stavrou (1987) claim that it must be present. It is interesting to note that Modern Greek allows flexible word order.

<sup>42</sup> Thanks are due to Itziar San Martín (personal communication) for help with the Basque data, especially (93). She informs me that the *i*-prefix may be a result of compounding the negative morpheme *ez* to the indeterminate plus a vowel quality change and the dropping of *z*. She notes that prefixation is virtually absent in Basque. Trask (1997:197) simply states that the origin of the *i*-prefix is unknown.

Note that the negative origin of the *i*-prefix should only be etymological, even if San Martín's suggestion is on the right track. Given their appearance in nonnegative contexts, there is no reason to assume that members of the Basque *i*-series are inherently negative.

- (93) Q: Nor etorri da?  
           who come has  
           ‘Who came?’

A: \*I-nor.  
       anybody

Similarly, these polarity items can be licensed in interrogatives and conditionals, as shown by examples from Haspelmath 1997 in (94).

- (94) a. E-zer     ikusten ba-duzu,     esaidazu.  
           anything see     COND-have-2 tell-2-1  
           ‘If you see anything, tell me.’  
       b. E-zer     jan nahi al duzu?  
           anything eat want Q have-2  
           ‘Would you like to eat anything?’

If the indeterminate part were the host of an uninterpretable focus feature, these Basque expressions should also be confined to the negative context, contrary to fact. They would be expected to be able to stand alone as elliptical answers, again contrary to fact. Recall that the ordinary semantic contribution of sentential negation, which is supposed to be in the ellipsis site in (93A), would be canceled owing to feature copying once the expression in question is forced by its own uninterpretable focus feature to undergo checking with the neg-feature of the Neg head. Thus, we can safely conclude that the indeterminate is not the locus of an uninterpretable focus feature.

The *i*-part is not an appropriate host for an uninterpretable focus feature, either. It requires focus morphology, which the *i*-part cannot represent. The only possible remaining UG option is negative polarity, which does not involve feature checking.

**6.3.4 Minimizers** Minimizers can also host an uninterpretable focus feature in the scalar particle attached to them. Recall the behavior of Spanish and Catalan minimizers discussed in section 6.2. Japanese minimizers are formed by the numeral meaning ‘one’ followed by a classifier and the focus particle *mo* and behave like negative concord items, as the question-answer pair in (95) illustrates.

- (95) Q: Nan-nin-no gakusei-ga kouenkai-ni ki-mashi-ta ka?  
           what-CL-GEN student-NOM talk-to come-POLITE-PAST Q  
           ‘How many students showed up at the talk?’  
       A: Hito-ri-mo.  
           one-CL-MO  
           ‘None.’

The full version of the answer is shown in (96).

- (96) Hito-ri-mo ko-nak-atta.  
       one-CL-MO come-NEG-PAST  
       ‘None of them came.’

Nonnegative contexts disallow minimizers, as shown in (97).<sup>43</sup>

- (97) a. \*(Moshi) gakusei-ga hito-ri-mo taihos-are-tara, kougisuru.  
           if student-NOM one-CL-MO arrest-PASS-COND protest  
           ‘If any single student is arrested, I will protest.’  
       b. \*Gakusei-ga hito-ri-mo kouenkai-ni ki-mashi-ta ka?  
           student-NOM one-CL-MO talk-to come-POLITE-PAST Q  
           ‘Did any single student show up at the talk?’

We are led to conclude that the focus particle functions as D when it is attached to a minimizer. It indeed appears in phrase-final position when the head noun is present, as in (98).

- (98) Hito-ri-no-gakusei-mo ko-nak-atta.  
       one-CL-GEN-student-MO come-NEG-PAST  
       ‘No student came.’

To summarize, the generalization about the relation between focus morphology and the uninterpretable focus feature, which receives ample crosslinguistic support in section 6.2, needs to be qualified in such a way as to count a scalar focus particle as relevant morphology only when it is attached to an indeterminate or to a minimizer, namely, when it functions as D.

**6.3.5 Quechua and Serbo-Croatian** Before closing the discussion, I should note that the indeterminate plus ‘even’ does not always guarantee negative concord. In Quechua, for example, combining an indeterminate with the scalar focus particle yields an existential quantifier, as shown by the Imbabura Quechua examples from Cole and Hermon 1994 in (99).

- (99) a. Pi-wan-taj Juan parlarka?  
           who-with-Q Juan spoke  
           ‘Who did Juan speak with?’  
       b. Pi-pash shamurka.  
           who-even came  
           ‘Someone came.’

Haspelmath (1997) observes that this is a typologically productive pattern. It should not be put aside as an exception. What is going on?

Again, the problem lies in the syntax-morphology relation. Morphology does not come with an unambiguous flag indicating its syntactic role. The presence of focus morphology forces checking of neg-features when the choice is between negative concord and negative polarity in the negative context. This choice does not simply arise when the expression in question appears in a plain affirmative sentence, as in (99b). It is formal features, not morphology itself, that drive syntactic computation. In cases like (99b), there is no reason to posit features that participate in negative doubling.

<sup>43</sup> If *demo* (see footnote 35) is used instead of *mo*, both sentences in (97) become good. The analysis of *demo* must be left to future research, though.

A slightly more complicated situation is found in Serbo-Croatian, which also has an indeterminate system, as in (100).<sup>44</sup>

(100) *Serbo-Croatian*

	Interrogative	Existential	<i>I</i> -series	<i>Ni</i> -series
Person	(t)ko	ne-(t)ko	i-(t)ko	ni-(t)ko
Thing	što, šta	ne-što	i-šta	ni-što, ni-šta
Place	gdje	ne-gdje	i-gdje	ni-gdje
Time	kad(a)	ne-kad(a)	i-kad(a)	ni-kad(a)

Both the *i*-series and the *ni*-series contain the scalar particle *i* meaning ‘even’, as noted by Haspelmath (1997) and a reviewer. Significantly, members of the *i*-series do not seem to function as negative concord items, judging from the fact that they are licensed in nonnegative contexts or by a superordinate negation and that they cannot occur with clausemate negation, as shown in (101).

- (101) a. \*Milan ne voli i(t)ko-ga.  
 Milan NEG loves anyone-ACC  
 b. Ako Milan povredi i(t)ko-ga, biće kažnjen.  
 if Milan hurts anyone-ACC be-FUT punished  
 ‘If Milan hurts anyone, he will be punished.’  
 c. Da li Milan voli i(t)ko-ga?  
 that Q Milan loves anyone-ACC  
 ‘Does Milan love anyone?’  
 d. Milan ne tvrdi [da Marija poznaje i(t)ko-ga].  
 Milan NEG claims that Mary knows anyone-ACC  
 ‘Milan does not claim that Mary knows anyone.’

The *ni*-series displays the opposite behavior, as shown in (102).

- (102) a. Milan ne voli ni(t)ko-ga.  
 Milan NEG loves no-one-ACC  
 ‘Milan does not love anyone.’  
 b. \*Ako Milan povredi ni(t)ko-ga, biće kažnjen.  
 if Milan hurts no-one-ACC be-FUT punished  
 c. \*Da li Milan voli ni(t)ko-ga?  
 that Q Milan loves no-one-ACC  
 d. \*Milan ne tvrdi [da Marija poznaje ni(t)ko-ga].  
 Milan NEG claims that Mary knows no-one-ACC

<sup>44</sup> Thanks to a reviewer for bringing Serbo-Croatian to my attention. The Serbo-Croatian data are drawn from Progovac 1991, 1994, unless noted otherwise. (100) is from Haspelmath 1997, with some corrections by a reviewer.

The elliptical answer data in (103) confirm that members of the *ni*-series are concord items.<sup>45</sup>

- (103) Q: Koga Milan voli? / Koga voli Milan?  
           who Milan loves who loves Milan  
           ‘Who does Milan love?’

A: Ni(t)koga.  
      no-one-ACC

Members of the *i*-series, on the other hand, are polarity items, as indicated by their inability to appear in a plain affirmative context such as (104).

- (104) \*Milan tvrdi [da Marija poznaje i(t)ko-ga].  
        Milan claims that Mary knows anyone-ACC

It is the *i*-series that the reviewer regards as problematic, because its members are not concord items but polarity items even though they are made up of an indeterminate and a particle meaning ‘even’. Note that essentially the same solution applies here as in the case of Quechua. It is true that members of the *i*-series are a kind of polarity item. Their ungrammaticality in the clausemate negation context illustrated in (101a), however, disqualifies them as candidates for negative concord items. Thus, we are led to conclude that while the *i*-part of the *ni*-series is a morphological realization of an uninterpretable focus feature, the *i*-part of the *i*-series is not. There is nothing mysterious about this conclusion. In English, *that* functions as a complementizer or as a demonstrative, depending on the context. Let me stress again that outside the contexts for negative concord, the mere presence of focus morphology does not dictate the presence of an uninterpretable focus feature.

Note that this account will be falsified if a language is found that is exactly like Serbo-Croatian except that members of its polarity series are allowed in the clausemate negation context

<sup>45</sup> I would like to thank Željko Bošković (personal communication) for providing (103).

A reviewer points out that the particle *ni* is separated from the indeterminate by P, as in (i).

- (i) Milan ne mari ni za koga.  
      Milan NEG cares NI for who  
      ‘Milan doesn’t care for anyone.’

According to Progovac (2000), this separation is obligatory, as indicated by the marginality of (ii).

- (ii) ??Milan ne mari za ni-koga.  
      Milan NEG cares for NI-who

The same is true in Japanese, as the contrast in (iii) shows.

- (iii) a. John-wa dare-to-mo hanasa-nak-atta.  
           John-TOP who-with-MO talk-NEG-PAST  
           ‘John didn’t talk to anyone.’  
       b. \*John-wa dare-mo-to hanasa-nak-atta.  
           John-TOP who-MO-with talk-NEG-PAST

Elsewhere (Watanabe 2002b), I suggest that this is an instance of the P-D interaction, which derives the fused form *au* from *à* ‘to’ + *le* ‘the’ in French, for example. If so, this phenomenon lends support to the idea that the particle related to an indeterminate is D. Also see Takahashi 2002, where the Japanese particle *mo* is analyzed as undergoing head movement as D and being adjoined to P. For more details of the Slavic phenomenon, see Harves 1998.



as well. It thus predicts that no such language should exist, a prediction consistent with the currently available crosslinguistic data. In this sense, the unacceptability of the *i*-series in (101a) is no coincidence under my account, though the exact grammatical source of the ill-formedness of (101a) is another question.

Another relevant factor is the observation that two morphologically distinct series never have the same grammatical role to play. For example, there is no language that has two morphologically distinct productive series of negative concord items. If there is a principle of the lexicon that prohibits such a language, either the *i*-series members or the *ni*-series members will necessarily fail to be negative concord items, even though the two series share the scalar focus particle. Under this possibility, the ill-formedness of (101a) is not expected and must be attributed to some independent factor. At the current level of research on crosslinguistic variation related to negative concord, it is hard to tell which approach is on the right track. Both may be right.

It is also difficult to evaluate the reviewer's suggestion that the negative morphology of members of the *ni*-series plays a significant role in pushing them into the negative concord use. This suggestion may be right, but the negative morphology itself cannot be the realization of the interpretable neg-feature, as discussed above. At any rate, it must be tested against another language similar to Serbo-Croatian in the relevant respects. When there is only a single series containing the scalar particle, as in Japanese, negative concord does not require negative morphology. It is therefore necessary to look at a language with two such series. At present, Serbo-Croatian is the only language I am aware of that bears on this question.<sup>46</sup> It is impossible to draw a crosslinguistic generalization from a single language. The issue thus must be left to future investigation. For present purposes, it suffices to note that Serbo-Croatian does not pose a threat to my proposed view on the PF realization of an uninterpretable focus feature. The discussion in this section is only the first systematic crosslinguistic attempt ever made to uncover the role that focus morphology plays in negative concord.

## 7 Conclusion

In this article, we have seen computational and morphological aspects of the uninterpretable focus feature, which drives checking of the neg-features in negative doubling. The uninterpretable focus feature also drives feature checking behind *wh*-movement in *wh*-questions (Watanabe 2002c), so it has some generality in the so-called  $\bar{A}$ -system. Careful analysis of elliptical answers has established that negative concord items are inherently negative after all, as originally conceived by Haegeman and Zanuttini (1991, 1996). If negative quantifiers appear without an uninterpretable focus feature, no feature checking takes place, resulting in double negation if sentential negation cooccurs. Standard English expressions like *nobody* and *nothing* are candidates for this type of negative quantifier. Negative polarity items, on the other hand, lack both an uninterpretable focus feature and a neg-feature.

<sup>46</sup> The Japanese particle *demo*, mentioned in footnotes 35 and 43, is useless for this purpose, because it seems to create only a free choice item when attached to an indeterminate. It does not contain negative morphology, either.

At the same time, the analysis proposed in this article corroborates the conclusion reached by Merchant (2001) that ellipsis involves PF deletion and recovers antecedents through semantic identity. The minimalist reworking of Haegeman and Zanuttini's proposal set forth here has also succeeded in deriving the core part of Neg-Factorization from the feature-copying process that accompanies the Agree operation in general. Feature copying was also shown to provide the conceptual foundation for defining chains in terms of occurrences. As shown in Watanabe 2000, it is involved in A-movement as well. As a reviewer points out, it is an interesting question whether  $\bar{A}$ -dependencies other than negative doubling exhibit signs of feature copying. The question is related to what kinds of features participate in these dependencies and should guide future research in the relevant domains.

The morphophonological realization of the uninterpretable focus feature takes two major forms: stress, as in Modern Greek; and a scalar focus particle attached to an indeterminate, as in Japanese and Russian, or to a minimizer, as in Romance and Japanese. When the focus particle is attached to an indeterminate or a minimizer, it functions as the D head, which therefore is identified as the location of the uninterpretable focus feature. Compared with focus morphology, negative morphology plays only a very minor role, if any. Not much work has been done on the nature of minimizers in the context of negative concord.<sup>47</sup> I hope that the results presented here will be a starting point for further crosslinguistic investigation in future research.

## References

- Acquaviva, Paolo. 1999. Negation and operator dependencies: Evidence from Italian. *Lingua* 108:137–174.
- Androutsopoulou, Antonia. 2001. Adjectival determiners in Albanian and Greek. In *Comparative syntax of Balkan languages*, ed. by María Luisa Rivero and Angela Ralli, 161–199. Oxford: Oxford University Press.
- Aoyagi, Hiroshi, and Toru Ishii. 1994. On agreement-inducing vs. non-agreement-inducing NPIs. In *NELS 24*, ed. by Mercè González, 1–15. Amherst: University of Massachusetts, GLSA.
- Ausín, Adolfo. 1999. Chinese-type questions in English. In *Proceedings of the 17th West Coast Conference on Formal Linguistics*, ed. by Kimary Shahin, Susan Blake, and Eun-Sook Kim, 30–43. Stanford, Calif.: CSLI Publications.
- Besten, Hans den. 1986. Double negation and the genesis of Afrikaans. In *Substrata versus universals in creole languages*, ed. by Pieter Muysken and Norval Smith, 185–230. Dordrecht: Foris.
- Bošković, Željko. 1999. On multiple feature checking: Multiple *wh*-fronting and multiple head movement. In *Working minimalism*, ed. by Samuel David Epstein and Norbert Hornstein, 159–187. Cambridge, Mass.: MIT Press.
- Bošković, Željko. 2002. On multiple *wh*-fronting. *Linguistic Inquiry* 33:351–383.
- Bošković, Željko. 2003. On left branch extraction. In *Investigations into formal Slavic linguistics: Contributions of the 4th European Conference on Formal Description of Slavic Languages–FDSL IV*, ed. by Peter Kosta, Joanna Błaszczak, Jens Frasek, Ljudmila Geist, and Marzena Żygis, 543–577. Frankfurt am Main: Peter Lang.

<sup>47</sup> Vallduví 1994 is a valuable exception.

- Bošković, Željko. 2004. Topicalization, focalization, lexical insertion, and scrambling. *Linguistic Inquiry* 35.4 (this issue).
- Brody, Michael. 1990. Remarks on the order of elements in the Hungarian focus field. In *Approaches to Hungarian*, vol. 3, ed. by István Kenesei, 95–121. Szeged: JATE.
- Brown, Sue. 1999. *The syntax of negation in Russian: A minimalist approach*. Stanford, Calif.: CSLI Publications.
- Chomsky, Noam. 1995. Categories and transformations. In *The Minimalist Program*, 219–394. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1998. Some observations on economy in generative grammar. In *Is the best good enough?*, ed. by Pilar Barbosa, Danny Fox, Paul Hagstrom, Martha McGinnis, and David Pesetsky, 115–127. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1–52. Cambridge, Mass.: MIT Press.
- Chomsky, Noam, and Howard Lasnik. 1993. The theory of principles and parameters. In *Syntax: An international handbook of contemporary research*, vol. 1, ed. by Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld, and Theo Vennemann, 506–569. Berlin: Walter de Gruyter.
- Citko, Barbara. 2004. On headed, headless, and light-headed relatives. *Natural Language & Linguistic Theory* 22:95–126.
- Cole, Peter, and Gabriella Hermon. 1994. Is there LF *wh*-movement? *Linguistic Inquiry* 25:239–262.
- DeGraff, Michel. 1993. A riddle on negation in Haitian. *Probus* 5:63–93.
- Déprez, Viviane. 1999. The roots of negative concord in French and French-lexicon creoles. In *Language creation and language change: Creolization, diachrony, and development*, ed. by Michel DeGraff, 375–427. Cambridge, Mass.: MIT Press.
- Déprez, Viviane. 2000. Parallel (a)symmetries and the internal structure of negative expressions. *Natural Language & Linguistic Theory* 18:253–342.
- Fauconnier, Gilles. 1975. Pragmatic scales and logical structure. *Linguistic Inquiry* 6:353–375.
- Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 2000. Negative . . . concord? *Natural Language & Linguistic Theory* 18:457–523.
- Giannakidou, Anastasia. To appear. N-words and negative concord. In *The linguistics companion*. Oxford: Blackwell.
- Haerberli, Eric, and Liliane Haegeman. 1995. Clause structure in Old English: Evidence from negative concord. *Journal of Linguistics* 31:81–108.
- Haegeman, Liliane. 1995. *The syntax of negation*. Cambridge: Cambridge University Press.
- Haegeman, Liliane. 1997. The syntax of n-words and the Neg-Criterion. In *Negation and polarity*, ed. by Danielle Forget, Paul Hirschbühler, France Martineau, and María Luisa Rivero, 115–137. Amsterdam: John Benjamins.
- Haegeman, Liliane. 2001. Approaches to OV: West Flemish negation as evidence for double movement. In *Progress in grammar: Articles at the 20th anniversary of the Comparison of the Grammatical Models Group in Tilburg*, ed. by Marc van Oostendorp and Elena Anagnostopoulou. Tilburg University. Available at <http://www.meertens.nl/books/progressinggrammar/>.
- Haegeman, Liliane, and Raffaella Zanuttini. 1991. Negative heads and the Neg Criterion. *The Linguistic Review* 8:233–251.

- Haegeman, Liliane, and Raffaella Zanuttini. 1996. Negative concord in West Flemish. In *Parameters and functional heads*, ed. by Adriana Belletti and Luigi Rizzi, 117–179. Oxford: Oxford University Press.
- Hamblin, C. L. 1973. Questions in Montague Grammar. *Foundations of Language* 10:41–53.
- Harves, Stephanie. 1998. The syntax of negated prepositional phrases in Slavic. In *Formal Approaches to Slavic Linguistics: The Connecticut meeting 1997*, ed. by Željko Bošković, Steven Franks, and William Snyder, 166–186. Ann Arbor: Michigan Slavic Publications.
- Haspelmath, Martin. 1997. *Indefinite pronouns*. Oxford: Oxford University Press.
- Heim, Irene. 1984. A note on negative polarity and downward entailingness. In *NELS 14*, ed. by Charles Jones and Peter Sells, 98–107. Amherst: University of Massachusetts, GLSA.
- Herburger, Elena. 2001. The negative concord puzzle revisited. *Natural Language Semantics* 9:289–333.
- Hoeksema, Jack, and Hotze Rullmann. 2001. Scalarity and polarity: A study of scalar adverbs as polarity items. In *Perspectives on negation and polarity items*, ed. by Jack Hoeksema, Hotze Rullmann, Victor Sanchez-Valencia, and Ton van der Wouden, 129–171. Amsterdam: John Benjamins.
- Horn, Laurence R. 2000. Pick a theory (not just *any* theory): Indiscriminatives and the free-choice indefinite. In *Negation and polarity*, ed. by Laurence R. Horn and Yasuhiko Kato, 147–192. Oxford: Oxford University Press.
- Horrocks, Geoffrey, and Melita Stavrou. 1987. Bounding theory and Greek syntax: Evidence for *wh*-movement in NP. *Journal of Linguistics* 23:79–108.
- Kato, Yasuhiko. 1985. *Negative sentences in Japanese*. Sophia Linguistica Monograph 19. Tokyo: Sophia University.
- Kato, Yasuhiko. 2000. Interpretive asymmetries of negation. In *Negation and polarity*, ed. by Laurence R. Horn and Yasuhiko Kato, 62–87. Oxford: Oxford University Press.
- Kayne, Richard S. 1998. Overt vs. covert movement. *Syntax* 1:128–191.
- Kennedy, Christopher, and Jason Merchant. 2000. Attributive comparative deletion. *Natural Language & Linguistic Theory* 18:89–146.
- Kishimoto, Hideki. 2001. Binding of indeterminate pronouns and clause structure in Japanese. *Linguistic Inquiry* 32:597–633.
- É. Kiss, Katalin. 1998. Identificational focus versus information focus. *Language* 74:245–273.
- Lahiri, Utpal. 1998. Focus and negative polarity in Hindi. *Natural Language Semantics* 6:57–123.
- Laka, Itziar. 1990. Negation in syntax: On the nature of functional categories and projections. Doctoral dissertation, MIT, Cambridge, Mass.
- Lee, Young-Suk, and Laurence Horn. 1994. *Any as indefinite + even*. Ms., Yale University, New Haven, Conn.
- Longobardi, Giuseppe. 1991. In defense of the correspondence hypothesis: Island effects and parasitic constructions at LF. In *Logical structure and linguistic structure*, ed. by C.-T. James Huang and Robert May, 149–196. Dordrecht: Kluwer.
- Maeda, Yoshimi. 2003. Reducing the clause-mate condition of a negative concord item and neg to the Phase Impenetrability Condition. In *Proceedings of Sophia Linguistics Society*, 81–99. Tokyo: Sophia University.
- Mahajan, Anoop. 1990. LF conditions on negative polarity licensing. *Lingua* 80:333–348.
- Martins, Ana Maria. 2000. Polarity items in Romance: Underspecification and lexical change. In *Diachronic syntax: Models and mechanisms*, ed. by Susan Pintzuk, George Tsoulas, and Anthony Warner, 191–219. Oxford: Oxford University Press.
- May, Robert. 1989. Interpreting Logical Form. *Linguistics and Philosophy* 12:387–435.
- Merchant, Jason. 2001. *The syntax of silence*. Oxford: Oxford University Press.
- Partee, Barbara. 1986. *Any, almost, and superlatives*. Ms., University of Massachusetts, Amherst.
- Pesetsky, David. 2000. *Phrasal movement and its kin*. Cambridge, Mass.: MIT Press.

- Progovac, Ljiljana. 1991. Polarity in Serbo-Croatian: Anaphoric NPIs and pronominal PPIs. *Linguistic Inquiry* 22:567–572.
- Progovac, Ljiljana. 1994. *Negative and positive polarity*. Cambridge: Cambridge University Press.
- Progovac, Ljiljana. 1998. Determiner phrase in a language without determiners. *Journal of Linguistics* 34: 165–179.
- Progovac, Ljiljana. 2000. Coordination, c-command, and “logophoric” n-words. In *Negation and polarity*, ed. by Laurence R. Horn and Yasuhiko Kato, 88–114. Oxford: Oxford University Press.
- Puskás, Genoveva. 2000. *Word order in Hungarian*. Amsterdam: John Benjamins.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar*, ed. by Liliane Haegeman, 281–337. Dordrecht: Kluwer.
- Rullmann, Hotze. 1996. Two types of negative polarity items. In *NELS 26*, ed. by Kiyomi Kusumoto, 335–350. Amherst: University of Massachusetts, GLSA.
- Sohn, Keun-Won. 1995. Negative polarity items, scope and economy. Doctoral dissertation, University of Connecticut, Storrs.
- Stjepanović, Sandra. 1999. Multiple sluicing and superiority in Serbo-Croatian. In *NELS 29*, vol. 2, ed. by Pius N. Tamanji, Masako Hirotani, and Nancy Hall, 145–159. Amherst: University of Massachusetts, GLSA.
- Suñer, Margarita. 1995. Negative elements, island effects, and resumptive *no*. *The Linguistic Review* 12: 233–273.
- Swart, Henriëtte de, and Ivan A. Sag. 2002. Negation and negative concord in Romance. *Linguistics and Philosophy* 25:373–417.
- Takahashi, Daiko. 2002. Determiner raising and scope shift. *Linguistic Inquiry* 33:575–615.
- Tomić, Olga Mišeska. 1996. The Balkan Slavic nominal clitics. In *Approaching second: Second position clitics and related phenomena*, ed. by Aaron L. Halpern and Arnold M. Zwicky, 511–535. Stanford, Calif.: CSLI Publications.
- Trask, R. L. 1997. *The history of Basque*. London: Routledge.
- Tsimpli, Ianthi-Maria, and Anna Roussou. 1996. Negation and polarity items in Modern Greek. *The Linguistic Review* 13:49–81.
- Uriagereka, Juan. 1988. On government. Doctoral dissertation, University of Connecticut, Storrs.
- Vallduví, Enric. 1994. Polarity items, n-words and minimizers in Catalan and Spanish. *Probus* 6:263–294.
- Watanabe, Akira. 1992. *Wh*-in-situ, Subjacency, and chain formation. MIT Occasional Papers in Linguistics 2. Cambridge, Mass.: MIT, Department of Linguistics and Philosophy, MITWPL.
- Watanabe, Akira. 2000. Feature copying and binding: Evidence from complementizer agreement and switch reference. *Syntax* 3:159–181.
- Watanabe, Akira. 2001. Decomposing the Neg-Criterion. In *Romance languages and linguistic theory 1999: Selected papers from “Going Romance” 1999*, ed. by Yves D’hulst, Johan Rooryck, and Jan Schroten, 383–406. Amsterdam: John Benjamins.
- Watanabe, Akira. 2002a. Feature checking and neg-factorization in negative concord. In *Proceedings of the Sophia Symposium on Negation*, ed. by Yasuhiko Kato, 51–77. Tokyo: Sophia University.
- Watanabe, Akira. 2002b. Functional projections of nominals in Japanese: Syntax of classifiers. Ms., University of Tokyo.
- Watanabe, Akira. 2002c. Loss of overt *wh*-movement in Old Japanese. In *Syntactic effects of morphological change*, ed. by David Lightfoot, 179–195. Oxford: Oxford University Press.
- Watanabe, Akira. 2003. WH and operator constructions in Japanese. *Lingua* 113:519–558.
- Watanabe, Akira. 2004. Parametrization of quantificational determiners and head-internal relatives. *Language and Linguistics* 5:59–97.
- van der Wouden, Ton. 1997. *Negative contexts*. London: Routledge.

- Yamashita, Hideaki. To appear. On the distribution and licensing of negative polarity items in Japanese and the Phase-Impenetrability Condition. In *Proceedings of the Fourth Tokyo Conference on Psycholinguistics*. Tokyo: Hituzi Syobo.
- Zanuttini, Raffaella. 1991. Syntactic properties of sentential negation: A comparative study of Romance languages. Doctoral dissertation, University of Pennsylvania, Philadelphia.

*Department of English*  
*University of Tokyo*  
*7-3-1 Hongo*  
*Bunkyo-ku, Tokyo 113-0033*  
*Japan*  
*akirawat@l.u-tokyo.ac.jp*