

NEGATIVE POLARITY: A COMPARATIVE SYNTAX OF ENGLISH, JAPANESE, AND SPANISH

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Abstract: The licensing patterns of negative polarity items are investigated on the basis of comparative data from English, Japanese, and Spanish. It is claimed that the licensing principle of NPIs is interpretive in nature, and that parametric variations are induced from an interplay of two related factors: a condition on the distribution of formal features and a morphological property of the neg-feature itself.

Keywords: formal features, licensing, minimalist, negative polarity, non-negative contexts, parametric variation.

1. INTRODUCTION

The distribution of negative polarity items (henceforth, NPIs) exhibits both uniformity and variation across languages. As is seen from (1)-(3) below, English, Spanish, and Japanese (and for that matter any languages) are uniform in allowing NPIs to occur with clausemate negatives as in (1). A considerable degree of variations will emerge, however, as to whether they permit NPIs to occur with superordinate negatives as in (2), or to occur in so-called non-negative contexts such as antecedent clauses of conditionals as in (3), or in questions and complements of adversative predicates which we will present in section 2:

- (1) *Clausemate negation*
 - a. John didn't eat anything.
 - b. Juan no comió nada.
 - c. John-ga nanimo tabe-nakat-ta (koto)
-Nom anything eat-NEG-past (fact)

- (2) *Superordinate negation*
- a. John denied that anyone would come.
 - b. Juan negó que viniera nadie.
 - c. *John-wa daremo kuru koto-o hiteisi-ta
-Top anyone come fact-Acc deny-past
- (3) *Conditionals (a non-negative context)*
- a. If John eats anything,
 - b. *Si Juan comió nada,
 - c. *mosi John-ga nanimo tabe-tara,
if -Nom anything eat-conditional, ...

This basic pattern invokes at least two problems for any theory of negation which purports to explain universal properties and a possible range of variations of the NPI licensing. The problems are: (i) what principle is responsible for the core property of the NPI licensing, and (ii) what factors are involved to induce the exact range of parametric variations.

In this paper, we will focus on comparative data from English, Japanese, and Spanish, and argue that (i) the licensing principle of NPIs is interpretive in nature, and (ii) parametric variations are induced from an interplay of two related factors: (a) a condition on the distribution of formal features, and (b) a morphological strength of the neg-feature itself.

This paper is organized as follows. In section 2, we will present basic patterns of NPIs in the above three languages. In section 3, brief comments on previous analyses are presented. In section 4, we will propose our system of the NPI licensing within a version of the minimalist framework (Chomsky 1989, 1993, 1995, among others). Section 5 will show how the basic patterns observed in section 2 are accounted for in our proposed system. Section 6 will conclude our discussion.

2. DISTRIBUTIONAL PATTERNS

In an attempt to account for the sharing and differing properties of English, Japanese, and Spanish with respect to the NPI licensing, we will present core materials with special reference to the clausemate negation (section 2.1), superordinate negation (2.2), complements of adversative predicates (2.3), questions (2.4), and antecedent clauses of conditionals (2.5). Section 2.6 will summarize the observations. For more comprehensive lists of licensing contexts, see Klima (1964), Linebarger (1980, 1987), Progovac (1994), van der Wooden (1996); and for observations on Japanese and Spanish NPIs, see Arnaiz (1980), Bosque (1980), N. Kato (1995, 1997), and Y. Kato (1985, 1994, 1997), among others.

2.1 Clausemate negation and a pre-verbal/post-verbal asymmetry

The only common property of the NPI licensing in the three languages, and for that matter in any language, is that they appear with clausemate negatives, as is seen in (a)-sentences in (4)-(6). As (b)-sentences show, however, NPIs cannot

2.3 Complements of adversative predicates

By adversative predicates is meant here a class of predicates such as *deny*, *doubt*, *be surprised*, etc., which are inherently negative in meaning. NPIs may appear in complements of these predicates in English and Spanish as in (11) and (12), respectively, but not in Japanese as in (13):

- (11) a. They doubt that I need ever consider the problem. (Klima 1964)
 b. John denied that anyone would come.
 (12) a. Dudan que yo necesite considerar nunca el problema.
 b. Juan negó que viniera nadie.
 (13) a. *Jon-wa [Mary-ga nanimo toi-ta] koto-o utagat-ta
 -Nom anything (Acc) solve-past fact-Acc doubt-past
 b. *John-wa [daremo ku-ru] koto-o hitei-si-ta
 anyone (Nom) come fact-Acc deny-past

2.4 Questions

In English, NPIs are licensed in yes/no questions and wh-questions, but in Spanish and Japanese, they may not be licensed in these contexts.

- (14) a. Did John eat anything?
 b. Who expects him to write any more novels? (Klima 1964)
 (15) a. *Comió Juan nada?
 b. *Quién espera que escriba Juan nada?
 (16) a. *John-wa nanimo tabe-masi-ta ka?
 anything eat-polite-past Q
 b. *[John-ga nanimo kak-u] to dare-ga omot-te imasu ka?
 anything write that who-Nom think-past-polite Q

2.5 Antecedent clauses of conditionals

In English, NPIs are licensed in antecedent clauses of conditionals, but in Spanish and Japanese, they may not be licensed in this context.

- (17) a. If you eat anything, I'll hit you. (Linebarger 1980)
 a. If Mary saw anyone, she will let us know. (Progovac 1994)
 (18) a. *Si comes nada, te pegaré.
 b. *Si Juan ve a nadie, nos lo informará.
 (19) a. *mosi kimi-ga nanimo tabe-tara, buti-masu yo
 if you-Nom anything eat-conditional, hit (you)
 b. *mosi Mary-ga daremo mikake-tara, sirase-te kureru desho
 if anyone see-conditional, let us know will

2.6 Summary

The distribution of NPIs in the three languages with respect to the above contexts, together with side remarks we made, will be summarized as follows. As is seen, English and Japanese are on the opposite extremes of the licensing pattern, with Spanish (and other Romance languages) falling in between. As is mentioned above, the case of superordinate negation, (20c) below, is possible in Japanese, only if a restrictive class of bridge expressions are involved.

(20)	English	Spanish	Japanese
a. clausemate negation	+	+	+
b. pre-verbal/post-verbal asymmetry	+	+	-
c. superordinate negation	+	+/-	- (+)
d. complements of adversative predicates	+	+	-
e. questions	+	-	-
f. antecedent clauses of conditionals	+	-	-

3. ON PREVIOUS APPROACHES

Though it is far from comprehensive, the parametric variation observed above will suffice to show that some of the prominent approaches to the NPI licensing in the current literature may not work properly to deal with these data.

3.1 Logico-pragmatic approaches

Ladusaw (1978) has given a precise formulation to Klima's (1964) notion of affectedness in terms of a logical concept of downward entailing. (For later elaborations, see Dowty (1994), Zwart (1990), van der Wooden (1996) among others.) Though the logical notion in question should operate in this domain, it needs some supplementary mechanisms to deal with any parametric variation. It is because, since the notion itself is defined on a purely logical basis, it should apply invariably across languages. The same applies to any analyses which incorporate some pragmatic principle (in addition to downward entailing, for instance). (See Linebarger (1980, 1987), van der Wooden (1996) and Yoshimura (1996), among others).

We will claim presently that certain parameters which are morphosyntactic in nature should be incorporated into the overall system of the NPI licensing.

3.2 Syntactic approaches

Within a framework of principles and parameters, Laka (1990) argues that cases of superordinate negation and adversative complements may be uniformly treated, if these two cases select a negative complementizer in CP, which in turn serves as a licenser for NPIs in the complements. The predictions are that (i) adversative verbs in any languages invariably select the negative complementizer due to their lexical semantic properties, and (ii) superordinate negation and adversative com-

plements always share the identical licensing properties. Both predictions, however, do not meet the above parametric patterns.

A closely related proposal has been made by Progovac (1994), who argues that, in addition to the negative elements such as *not*, *no*, etc., the negative operator which she postulates in CP functions as a licenser for NPIs. What is not clear, however, is when the abstract operator is available in a given construction or in a given language. We will attempt to answer the problem on a general ground.

4. A PROPOSAL

4.1 *General framework*

Following Chomsky (1993, 1995), we will assume that the computational system of human language faculty consists exclusively of two types of elementary operations (For further attempt to unify these two elementary operations, see Epstein 1994, Kitahara 1994, 1997 among others):

- (21) a. Merge
- b. Move

The computational system with these operations will provide instructions for interpretive systems that ultimately lead to sounds and meaning.

The elementary operations of the computational system interact with the nature of formal features, which are subdivided into two categories:

- (22) a. Interpretable features
- b. Uninterpretable features (Chomsky 1995, chapter 4)

An operation of Move (21b) is driven to eliminate uninterpretable features, so that only interpretable elements may remain in structures at interface level. One of the consequences is that, if a given feature is interpretable in itself, it will not have to (hence cannot, under economy condition) undergo movement operations.

Within the framework, we assume that (cf. Y. Kato 1997):

- (23) a. the negative elements and NPIs share the neg-feature, and
- b. the neg-feature is interpretable.

Given (23), the neg-feature (and NPIs which bear it) will not move for the sake of licensing, counter to the movement analyses of NPIs proposed in Kawashima and Kitahara 1993, Nishioka 1995, among others.

4.2 *The licensing principle*

Assuming the general framework outlined above, we will propose principle (24) for the NPI licensing:

- (24) A pair $\langle X, Y \rangle$, where X is a possible licenser, Y an NPI, is accessible to interpretation, iff
- (a) X c-commands Y ,
 - (b) X is closest to Y , and
 - (c) X and Y share a neg-feature.

Principle (24) specifies the configuration under which an NPI may receive a proper interpretation. If the proper configurations are provided by the computational system, an occurrence of NPI within them is licensed; otherwise, it will not. To put it differently, the computational system itself does not work for the purposes of licensing, but an NPI is licensed if it happens to find itself in proper configurations, so that it is properly interpreted. We are claiming that the NPI licensing is reduced to the general principle of Full Interpretation (Chomsky 1993, 1995), a condition on interface.

The licensing principle (24) by itself does not say anything about parametric variations across languages. Our second claim is that the licensing variations are derived from two factors. One of them concerns the distribution of the neg-feature which takes part in the third condition in (24). We propose that the distribution is delimited by the following condition:

(25) *Condition on Feature Distribution*

The neg-feature may appear only in a subset of the positions where overt negative(s) in a given language may appear.

In a language, then, where overt negatives may not appear in the CP domain for instance, the abstract neg-feature also may not.

A second factor that takes part in the licensing variations is the morphological nature of the neg-feature itself, which we will return below. As will be seen, while condition (25) imposes an absolute upper-bound on the distribution of neg-feature, the morphological property is the locus of variations within the upper limits.

5. DERIVING THE PARAMETRIC VARIATIONS

Note first that condition (25), together with the observations on overt negatives as in (27)-(28), predicts that the upper-bounds of the distribution of neg-feature in the three languages are as in (26):

(26) The distribution of the neg-feature

	CP domain	IP domain
English	+	+
Spanish	+	+
Japanese	-	+

- (27) a. John didn't eat apples.
 b. Juan no comió manzanas.
 c. John-ga ringo-o tabe-nakat-ta
 -Nom apples-Acc eat-NEG-past

- (28) a. None of them would I call.
 b. A ninguno de ellos llamaría yo.
 c. *Watasi-ga daremo yob-u daroo na-i
 I -Nom anyone call-non-past will NEG

Examples (27) show that the three languages permit overt negatives such as *not* in English, *no* in Spanish and *na(i)* in Japanese to occur in the IP domain, presumably as the head (or the specifier for English). Examples (28)(a) and (b) indicate that both English and Spanish show a residual verb second property. We assume with Rizzi (1991) and Haegeman (1996) that the preposed negatives in English occupy the specifier position of the CP, and with Laka (1990) that they occupy the specifier of Sigma-P in Spanish, a projection which constitutes a part of the CP layer. As (28)(c) shows, on the other hand, Japanese does not permit the overt negative to appear outside the IP domain (after the tense or modal element in this case). These observations indicate under condition (25) that the formal neg-feature distributes itself as in (26) above.

Note that pattern (26) does not in itself say anything about the difference between English and Spanish. As will be seen, a morphological property of the neg-feature intervenes to predict the difference in question.

Turning back to the observations summarized in (20), we can see that the variations among these three languages fall into three subtypes: (i) in clausemate negation, the three languages exhibit the identical pattern (except a certain asymmetry as will be seen), (ii) in superordinate negation and complements of adversative predicates, English and Spanish form a class, in contrast to Japanese, in that they license NPIs, and (iii) in questions and antecedent clauses of conditionals, Spanish and Japanese form a class, in contrast to English, in that they do not license NPIs. Let us now show how each of the subclasses is accounted for under our proposed system.

5.1 Clausemate negation and a pre-verbal/post-verbal asymmetry

Consider the first subtype in which the three languages exhibit an identical pattern, except particular realizations of the pre-verbal and post-verbal asymmetry. Observe English cases (4)(a) and (b), reproduced here as (29)(a) and (b):

- (29) a. John didn't eat anything.
b. *Anyone didn't eat apples.

We will propose that the asymmetry is accounted for as a joint effect of the VP-internal subject hypothesis (Koopman/Sportisch 1988, 1991, Kitagawa 1985, among others) and a possible interpretation of the Minimal Link Condition (Chomsky 1995) as is presented in (31). Note that under the VP-internal subject hypothesis examples (29)(a)(b) are represented as in (30):

- (30) a. [_{IP} John_i didn't [_{VP} t_i eat anything]]

b. [IP Anyone_i didn't [VP t_i eat apples]]

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As is indicated by straight lines, an NPI *anything* in (30a) is properly licensed in-situ, and *anyone* in (30b) is licensed via its trace. What is wrong with the latter is that on its way to the subject position (in order to check its nominative Case), *anyone* which bears the neg-feature goes across the overt negative *n't* which also bears the neg-feature. Assume now (31), a possible interpretation of the Minimal Link Condition (Chomsky 1995):

(31) The free-riding features are sensitive to the MLC.

(31') MLC (Chomsky 1995, 311)

H(K) attracts α only if there is no β , β closer to H(K) than α , such that H(K) attracts β .

By free-riding features we mean those formal features that are carried along with a certain feature that is attracted. In this case, the neg-feature free-rides the nominative Case feature which is attracted. Given this condition, (30b) turns out to involve a violation of the MLC. In other words, (30b) is illicit not because the NPI is not licensed, but because its derivation is blocked from the beginning.

The same applies to the Spanish case (5)(a)(b), reproduced here as (32):

(32) a. Juan *(no) comió nada.

b. Nadie (*no) comió.

The post-verbal case (32a) will impose no problem. In (32a), the post-verbal n-word *nada* is properly licensed, only if the negative *no* appears as in (33), which accounts for its obligatory presence:

(33) [IP Juan_i no [VP t_i comió nada]]

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On the other hand, the pre-verbal n-word *nadie* in (32b) is properly licensed, only if the negative *no* does not appear. Suppose now that *no* does appear as in (34):

(34) [IP Nadie_i no [VP t_i comió]]

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In (34), *nadie* which bears the neg-feature will necessarily cross the negative *no* which also bears the neg-feature on its way from the VP-internal position to the subject position. Under assumption (31), this derivation involves a violation of MLC, just like the English case as in (30b). We have seen so far that different manifestations of the pre-verbal/post-verbal asymmetry in English and Spanish receive a uniform treatment in our analysis.

Consider the Japanese cases (6)(a)(b), reproduced here as (35)(a)(b), where

(26), operates in this case. Recall that condition (25) entails that, while English and Spanish allow the neg-feature to appear in CP, Japanese does not. The observed contrast (37) will then follow under licensing principle (24).

In passing, we have observed in section 2 that, even in Japanese, NPIs in complement may be licensed if a restrictive class of predicates, which we call bridges, are present as in (10), reproduced here as (40):

- (40) a. Taro-wa [eigo-sika osie-ta] koto-ga na-i
 b. boku-wa [dokonimo ik-u] yotei-ga na-i

There is a piece of evidence, however, which suggests that these bridge complements do not have CP projection. For instance, an interrogative marker *ka* or a complementizer *to*, which have been treated as the head of CP (Nishigauchi 1990, among others), never appear in the bridge complements:

- (41) a. *Taro-wa [_{CP} [eigo-sika osie-ta] ka/to] koto-ga na-i
 b. *boku-wa [_{CP} [dokonimo ik-u] ka/to] yotei-ga na-i

If the CP projection does not exist from the beginning, so that configuration (39) is irrelevant in this case, then NPIs can be licensed in the same way as in the case of clausemate negation.

5.3 Complements of adversative predicates

Essentially the same argument applies to the case of complements of adversative (or inherently negative) predicates. The basic contrast is (42):

- (42) a. John denied that anyone would come (=11b)
 b. Juan negó que viniera nadie (=12b)
 c. *John-wa daremo ku-ru koto-o hitei-si-ta
 anyone come fact-Acc deny-past

Laka (1990) proposes that (i) adversative (or inherently negative) predicates select a negative complementizer when they take complements, and (ii) this complementizer serves as a licenser for NPIs in its complements. In our terms, the first claim is presented as in (43), and the second as in (44), where V* is an adversative predicate:

- (43) Adversative (or inherently negative) predicates license the neg-feature in CP.

- (44) [_{CP} V* [_{CP} neg [_{IP} ... NPI ...]]]
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Here again, we should note that the assumptions (43) and (44) as they are make a wrong prediction that in any language adversative predicates always license NPIs due to their inherent lexical semantic properties. This indicates that some other factor operates here to induce the parametric variation. Our proposal is that it is the condition (25) that interacts with configuration (44) to induce the range of variations. If this is the case, the contrast of the three languages will

follow in exactly parallel manner as the contrast of superordinate negation discussed above. Namely, English and Spanish permit the neg-feature to occur in CP, so that they meet the configuration (44). On the other hand, Japanese does not permit the neg-feature to appear in CP, so that it has no chance to satisfy configuration (44). Hence, the initial contrast.

5.4 Questions

Finally, let us consider the third subtype of parametric variations observed in (20) above, where Spanish and Japanese form a class, in contrast to English, in that they do not license NPIs. This type includes cases of questions (5.4) and antecedent clauses of conditionals (5.5). Consider first the case of questions.

As we have seen, the basic contrast is that, while English permits NPIs to occur in interrogative sentences without overt negatives as in (45a), Spanish and Japanese do not, as shown in (45)(b) and (c), respectively:

- (45) a. Did John eat anything? (=14a)
 b. *Comió Juan nada? (=15a)
 c. *John-wa nanimo tabe-ta no (=16a)

Let us assume, following Baker (1970) and its subsequent works, that every inter-rogative sentence has an abstract marker Q as the head of CP. This means that every interrogative sentence is equipped with the CP projection which will serve as a potential host for the neg-feature. Hence, in principle, the neg-feature can occur in the CP, so that it licenses NPIs as in (46):

- (46) [_{CP} neg Q [_{IP} ... NPI]]
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Needless to say, this assumption as it is does not say anything about the Spanish and the Japanese cases where NPIs cannot appear in questions. Given our condition (25), however, the contrast between English and Japanese is readily accounted for. It is because, unlike English, Japanese does not permit the neg-feature to occur in CP. Keeping the licensing possibility (46) as it is, the observed contrast follows without any stipulations.

In the case of Spanish, we should first note that under certain conditions n-words do appear in questions as in (47):

- (47) Cuándo me ha regalado nada? (Bosque 1980)
 'When has he given me anything?'

As has been observed by Bosque (1980) and Pilar (1996) among others, these interrogative sentences with n-words are not interpreted as ordinary questions, but as rhetorical questions (with negative implications). With this observation, we assume that in this case n-words are licensed not by the neg-feature in sentence grammar, but by a negative implication that rhetorical questions invite in discourse. Insofar as the core system of licensing concerns, therefore, our initial observations are valid: Spanish is in line with Japanese, but not with English.

Unlike the case of Japanese, however, the Spanish case results in a conflict with what the Condition on Feature Distribution (25) predicts. It is because the condition says that in Spanish the neg-feature may appear in CP, so that n-words may well be licensed in ordinary questions. How could we resolve this conflict?

Our conjecture is that in certain types of languages the neg-feature alone does not suffice to license NPIs, and need to be supported or activated by affective elements in higher clauses to fulfill the function. Suppose that Spanish is the case in point.

Viewed in this light, we will obtain a simple explanation for the second and the third types of variations. In the second type of superordinate negation and complements of adversative verbs, where NPIs are licensed in Spanish, negation in higher clauses or adversative verbs themselves serve as activating the neg-feature in CP, so that the latter can license NPIs. However, in the present case of simple questions (and of conditionals as we will see presently), there are no higher clauses which host affective elements which might activate the neg-feature. Hence, the neg-feature, though it can appear in CP, will not license NPIs in its domains. The observed facts are then accounted for.

5.5 Antecedent clauses of conditionals

The same explanation will apply to the case of antecedent clauses of conditionals. Observe the contrast (48):

- (48) a. If you eat anything, I'll hit you. (=17a)
 b. *Si comes nada, te pegaré. (=18a)
 c. *mosi kimi-ga nanimo tabe-tara, buti-masu yo (=19a)

Consider first the English case. Assume, following the standard assumption, that the conditional marker *if* is the head of CP. This means that English conditionals are equipped with CP, where the Condition on Feature Distribution allows the neg-feature to occur. This makes it possible to license NPIs as in (49):

- (49) [CP neg if [_{IP} ... NPI ...]]
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Example (48a) confirms this prediction.

As for the Japanese case, observe first that *mosi*, which is usually taken as a counterpart of *if* in English, is not a conditional marker, but an adverbial element (Kato 1997). This is seen from the fact that *mosi* may appear not only in the clause initial position but also in any major constituent breaks of a clause such as those indicated by under bars in (50):

- (50) ___ kimi-ga ___ Taro-ni ___ Hanako-o ___ shokai-si-tara,
 you-Nom -Dative -Acc introduce-conditional,
 'If you introduce Hanako to Taro, ...'

This indicates that the Japanese conditional clauses are signaled not by a clause initial marker but by an inflectional ending such as *-tara* as in (48b) and (50).

Hence, the Japanese conditionals need not (and under economy conditions, cannot) have the CP projection. If this is the case, the conditional cannot have the neg-feature unless it has an overt negative within IP. The same result obtains independently of the Condition on Feature Distribution.

Turning to the Spanish case, the same conflict as in the case of questions will arise. That is, the Condition on Feature Distribution predicts that, since the neg-feature may appear in CP in Spanish, it should be able to license NPIs in conditionals as in English.

This conflict, however, can be resolved in the same way as we discussed for the case of questions. That is, the mere presence of the neg-feature in CP may not suffice to license NPIs, but the neg-feature need to be supported by some affective elements in a higher position as in (39) and (44) to fulfill its licensing role. Since conditional clauses themselves are not embedded within larger affective contexts, the neg-feature, if present at all, may not license NPIs in this case.

6. CONCLUSION

In this paper, we have examined the licensing patterns of NPIs in English, Japanese, and Spanish, and have proposed an analysis to account for the parametric variations among them. Specifically, we have noticed three subtypes of variations: (i) in clausemate negation, the three languages exhibit the identical pattern, (ii) in superordinate negation and complements of adversative predicates, English and Spanish form a class, in contrast to Japanese, in that they license NPIs, and (iii) in questions and antecedent clauses of conditionals, Spanish and Japanese form a class, in contrast to English, in that they do not license NPIs.

Our analysis shows that the functioning of neg-feature is the key to account for the uniform and differing properties of the NPI distribution. The feature enters into the interpretive principle (24), thereby capturing the uniform properties, and at the same time respects the Condition on Feature Distribution (25), which is responsible for the parametric variation. In more general terms, uniform properties of NPIs are dependent upon syntactic relations such as those encoded in the licensing principle, and the essential part of parametric variations is reduced to morphosyntactic properties of restricted features.

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