

# Licensing of Negative Polarity Particles in English

## 1 Introduction

In this paper I discuss a class of Negative Polarity Items (NPIs) in English that I will call Negative Polarity Particles (NPPs). I observe that these items are only licensed by a subset of downward entailing (DE) environments. To distinguish the DE environments that can license NPPs I propose an additional condition of *assertivity*. I show that only environments that are both DE and assertive can license the NPPs. The combination ‘DE and assertive’, which I call *semantically negative*, is then shown to be helpful in explaining other semantic and pragmatic phenomena.

## 2 Negative Polarity Particles: non-truth-conditional NPIs

### 2.1 The items and their properties

The items I discuss in this paper are the following: negative aspectual particles *yet*, *anymore*, and the negative additive focus particle *either*. I call this class Negative Polarity Particles (NPPs). All these particles have positive counterparts: *already*, *still* and *too*, respectively. The NPPs rarely receive special attention in the NPI literature. Notable exceptions are papers on *either*, Rullmann (2003) and works referenced therein, and works on positive *anymore*. This is despite the fact that the class of NPPs has sometimes been identified (Krifka 1995).

The main property that distinguishes the NPPs from the regular NPIs is that the NPPs are not truth-conditional. The typical polarity items, including the frequently discussed *any* and *ever*, denote either minimum or, less frequently, maximum quantities. This creates an effect of emphasis or, less frequently, understatement (Israel 1996). In the most common case, the emphasis is achieved in downward entailing (DE) environments, and this was the motivation for DE as a licensing condition for the NPIs (Ladusaw 1980).

Since the NPPs are non-truth-conditional, this explanation cannot apply to them, as the sentence with and without the NPP has the same truth condition (compare (1) and (2) from Horn (2005:17)). Therefore, there is no motivation for DE by itself as the licensing condition for the NPPs.

- (1) She hasn’t recovered *yet*.
- (2) She hasn’t recovered.

In this paper I investigate the distribution of the NPPs, propose a licensing condition and provide a motivation for the proposed licensing condition.

### 2.2 Distribution: a subset of DE environments

While DE is a necessary condition for the licensing of the NPPs, it is not a sufficient condition. The following DE environments license NPPs: Negation, *doubt*, *barely*, *few*, *rarely*; rhetoric conditionals, negative implicative verbs like *fail* and *refuse*, *without*.

- (3) Few tourists are here *yet*.
- (4) It didn’t rain yesterday, and I doubt it will rain today, *either*.
- (5) They barely talk *anymore*.

On the other hand, the following DE environments do not license NPPs: conditionals unless rhetoric, restrictor of universals, complements of factives, comparatives, superlatives, emotive factives, *before*.

- (6) If you *ever* go to Brussels, you should buy me some Belgian chocolates.
- (7) I have never been to Amsterdam.\*If I go to Brussels *either*, I will buy you some Belgian chocolates.
- (8) I regret that I *ever* went to Spain.
- (9) \*I regret that I'm in Spain *anymore*.
- (10) \*Everyone who is here *anymore* will receive a prize.

*A counterexample to the De Morgan hierarchy*

The most widespread classification of DE environments and their licensing capabilities is into anti-morphic, anti-additive, and other DE environments (Zwarts 1995). In van der Wouden's (1997) terms, strong NPIs require an anti-morphic environment, medium strength NPIs require an anti-additive environment, and weak NPIs require a DE environment of any kind.

However, the NPPs cannot be categorized as belonging to either the weak, medium or strong NPI class. On the one hand, the environments created by the quantifiers *few* and *rarely* are DE, but not anti-additive, and the NPPs are licensed by them, suggesting that the NPPs are weak NPIs. On the other hand, antecedents of conditionals and restrictors of universals, both anti-additive environments, fail to license the NPPs, as if the NPPs were strong NPIs. Therefore, the NPPs are a counterexample to this hierarchy as a universal classification of the distribution of NPIs. This also refutes the claim (Szabolcsi 2004) that *yet* is a medium strength NPI licensed by anti-additive environments.

### 3 My proposal: negative = DE + assertive

#### 3.1 The concept of an 'assertive' environment and the licensing of NPPs

In order to distinguish between those DE environments that license NPPs and those that do not I introduce the notion of an *assertive environment*. The environment of a predicate/proposition is *assertive* if the sentence makes a claim regarding the extent of the realization of the predicate/proposition. Examples of assertive and non-assertive environments will be given below.

More definitions:

- (11) An environment is *semantically negative* iff it is **both downward entailing and assertive**.
- (12) An environment is *semantically positive* iff it is **both upward entailing and assertive**.

I propose the following licensing condition for the Negative Polarity Particles:

- (13) The NPPs are licensed by an environment which is **semantically negative, that is, both downward entailing and assertive**.

This explains why some DE environments license the NPPs and some do not: those that license the NPPs are assertive, and those that do not license the NPPs are not assertive.

I will demonstrate the concept 'assertive' on DE environments; however, this notion applies to environments regardless of their monotonicity properties. Compare the following two sentences, both containing the phrase *participated in the marathon* in a DE environment:

(14) Few people *participated in the marathon*. [DE and assertive]

(15) Everyone who *participated in the marathon* received a certificate. [DE, not assertive]

Example (14) makes a claim regarding the realization of the predicate *participated in the marathon*, namely, that the predicate holds of few people. Therefore, the environment in which the predicate appears is assertive. The environment is also DE, so it is semantically negative, and the NPPs are licensed in such sentences.

Example (15) refers to the individuals for which the predicates holds, but makes no claim regarding the realization of the predicate. Therefore, the environment in which the phrase appears is not assertive. Although it is DE, it is not semantically negative, and the NPPs are not licensed in such sentences.

The following two sentences contain the proposition  $p = it\ will\ rain\ today$  in a DE environment:

(16) I doubt *it will rain today*. [DE and assertive]

(17) If *it rains today*, the hike will be canceled. [DE, not assertive]

Example (16) makes an epistemic claim regarding the extent of realization of  $p$ , so the environment of  $p$  is assertive. The environment is also DE, so it is semantically negative, and the NPPs are licensed in such sentences.

Example (17) makes no claim regarding the extent of realization of  $p$ . Therefore, the environment in which  $p$  occurs is not assertive. Although it is DE, it is not semantically negative, and the NPPs are not licensed in such sentences.

Although I adopt the term *assertive* from Hooper (1975), my definition and extent of application of the term differ significantly. For Hooper (1975), it is a property of a predicate receiving a sentential complement; moreover, this was applied only to positive predicates. My definition applies to an environment, and the assertion can be either positive or negative.

What is the reason for (13) as a licensing condition? One possible explanation is the argumentative orientation. Positively oriented clauses are used to make claims in the opposite direction of the negatively oriented clauses. In the negative clauses the main predicate is in a semantically negative environment, and the NPPs mark the negative argumentative orientation. This is elaborated in the following section.

### 3.2 NPPs as markers of negative argumentative orientation

It has been noticed that, depending on the quantifiers, a sentence can have a positive or negative argumentative orientation, and the argumentative orientation affects the way a sentence can be used in inferences. Such inferences have been used to determine whether the quantifier is positive or negative (Ducrot 1973; Horn 2002).

Let's consider the case in which we are interested in having as many as possible working printers (example adapted from Horn 2002). In this case the more printers work, the better the situation. In the examples below we see that "good news" can be said when *work* is in a semantically positive environment, "bad news" is the appropriate conclusion when *work* is in a semantically negative environment, and neither can be used when *work* is in a non-assertive environment.

(18) Good/#Bad news: This printer works.

(19) Good/#Bad news: Many printers work.

- (20) Bad/#Good news: This printer doesn't work.
- (21) Bad/#Good news: Few printers work.
- (22) #Bad/#Good news: If this printer doesn't work, I'll try to fix it.

In the sentences with the negative argumentative orientation the main predicate is in a semantically negative environment, and these are the sentences that license the NPPs.

Another test for the argumentative orientation is substitution of clauses in sentences with discourse connectives. For *but*, sentences of the kind *p but q* are felicitous if *p* and *q* make claims towards opposite conclusions (Winter and Rimon 1994; Ducrot 1973). Consider the following sentences, uttered when someone went to do shopping and the question addressed is whether he will be able to buy something.

- (23) #He went to the store, but the store is *open*. [positive]
- (24) He went to the store, but I doubt the store is *open*. [negative]
- (25) He went to the store, #but if the store is *open*, he'll buy something. [non-assertive]

What are the sentences that license inferences like syntactically negative sentences? The answer can be given using the definitions in this paper: sentences in which one of the constituents is in a semantically negative environment. The quantifiers that license negative inferences are exactly those that license the NPPs. This can explain the licensing condition proposed in this paper: the NPPs are markers of argumentative force. The NPP accompanies a clause that can be used for negative inference: a semantically negative clause. Unlike DE by itself, this explanation can also hold for non-truth-conditional items, such as the NPPs.

### 3.3 *Semantically negative predicates and tests for negation*

Some of the environments, defined in this paper as DE and assertive, were sometimes described in earlier literature as a natural class, without a formal definition. Jespersen (1917) described sentences with quantifiers like *hardly*, *scarcely*, and *little/few* as “approximate negation”. Klima (1964) classifies some NPI-licensing quantifiers as “negatives” by proposing that they contain the *neg* feature; all these create assertive environments, and also license NPPs. Klima also proposed a number of syntactic tests for ‘negativity’, but no semantic definition of negativity was provided. One of the tests is *neither*-tags:

- (26) He didn't read it, and neither did I.
- (27) \*He read it, and neither did I.

After the proposal of DE as a licensing condition for the NPI like *any* and *ever* (Ladusaw 1980), the distinction between the “negative” DE environments and “non-negative” DE environments have been usually unnoticed. Huddleston and Pullum (2002), with principally the same tests for negativity as in Klima (1964), notice that the “approximate negators” pass these tests (28), and claim that it is DE that creates the negation. However, the DE environments that are not assertive do not pass these tests (29):

- (28) She hardly goes out these days, and *neither* does her son.
- (29) \*If she goes out these days, we will meet her, and *neither* does her son.

The environments that do pass the tests are all semantically negative, that is, DE and assertive. The definition of semantic negativity proposed in this paper explicates what these tests are sensitive to.

#### 4 Conclusion

In this paper I demonstrated that the Negative Polarity Particles require a special licensing condition in addition to DE, and proposed *assertivity* as such a licensing condition. This introduces a new hierarchy of the DE environments. DE and assertivity together constitute *semantic negativity*, the combined licensing condition for the NPPs. The analysis also explicates the notions of ‘negativity’ and negative argumentative orientation in the previous literature.

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