Degree Phrase Inversion in the Scope of Negation
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1 Introduction

In English, degree-modified adjectives typically follow the determiner. In constituent and echo questions, however, adjectives modified by the wh-degree word how must precede the article (1a–d).

(1) a. [How good a student] is John?
   b. *[A how good student] is John?
   c. John is [HOW GOOD a student]?
   d. *John is [a HOW GOOD student]?

Similarly, in equative comparatives, the comparative degree word as must precede the adjective.

(2) a. Kevin is [as good a student] as Elaine.
   b. *Kevin is [an as good student] as Elaine.

Degree inversions also occur in certain dialects in the context of negation. I will refer to this type of inversion, which has not received much discussion in the literature, as negative degree inversion (NDI).

(3) a. John is not [a very good student].
   b. John is not [very good a student].

In contrast to (1) and (2), both the normal ordering, (3a), and the inverted form (3b), are acceptable. That is, the inversion in (3b) is apparently optional. These facts raise the question of how the inversion in (3b) is licensed.

In section 2, I discuss the licensing environments of NDI, noting that they pattern similarly to the licensing environments of negative polarity items (NPIs). Drawing on the parallelism between NDI and NPIs, I propose in section 3 that NDI licensing is a subcase of negative polarity licensing, with the landing site of the degree phrase movement headed by an NPI.

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1 Use of the forms shown in (3) cuts across dialect and register lines on the basis of age and geographical location. However, the degree inversion in (3b) is generally part of a more informal register, with some speakers judging it ungrammatical (though I have observed many of the same speakers using the construction in casual speech).

2 NDI involves movement of DegPs headed by very, real, that, and too, though an anonymous LI reviewer notes that forms with very and real may be most widely accepted. This is perhaps due to the fact that that and too both participate in inversions in positive environments as well, though NDI of that and too results in a change of meaning (e.g., that is not necessarily deictic in John’s not that good a student).
2 The Licensing Environment of Negative Degree Inversion

As noted above, NDI is optional (4a–b). However, it requires the presence of a negative element (4c).

(4) a. John is not [a very good student].  
    b. John is not [very good a student].  
    c. *John is [very good a student].

As (5a–c) indicate, respectively, the relevant negative element may be not, a negative adverbial, or a negative verb.

(5) a. Mugsy Boags wasn’t/*was [very tall a basketball player].  
    b. She never/*always was [very good a dancer].  
    c. I doubt /*think that this will be [real interesting a class].

The licensing environments for NDI displayed in (5) recall those observed with NPIs. Like instances of NDI, NPIs are licensed only in an ‘appropriately negative environment’ (6).

(6) a. Daisy isn’t/*is anyone I know.  
    b. She never/*always was any good a dancer.  
    c. I doubt/*think you can do anything about poverty.

Nevertheless, the environments for NDI and NPIs are not identical.

Giannakidou (1997, 1998, 1999) characterizes negative polarity licensing as sensitivity to nonveridicality; in other words, NPIs are possible only in environments that exhibit nonveridicality. An operator is defined to be nonveridical if it does not entail the truth of its complement and is veridical otherwise.

(7) An operator Op is veridical just in case $Op \, p \rightarrow p$ is logically valid. Otherwise, $Op$ is nonveridical.

While NDI seems to pattern with NPIs with respect to sensitivity to nonveridicality, it is immediately apparent that the licensing environments for the two elements diverge; NDI is not licensed in all

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3 Giannakidou (1997) notes an additional construction in which a DegP is licensed only in the presence of negation. (i) shows that all that Adj is not possible in positive sentences, and (ii) that all that Adj constructions can also participate in NDI. (iib) is due to an anonymous LI reviewer.

(i) He wasn’t/*was all that intelligent.

(ii) a. He wasn’t/*was all that intelligent a man.  
    b. John didn’t make/*made all that good (of) an impression.

Giannakidou explains the distribution of all that Adj by proposing that it is an NPI.

4 In this squib, I differ from Giannakidou (1998, 1999) in using the term negative polarity item (NPI) where she would use the term affective polarity item (API), in which choice I believe I am following common usage. Giannakidou uses API to refer to all elements sensitive to nonveridicality, while she limits NPI to referring to elements licensed by antiveridicality.

5 This definition of nonveridicality is a simplified version of the definition given in Giannakidou 1999. I use this particular formulation for simplicity’s sake.
nonveridical environments. For example, while NPIs are licensed in the antecedent of a conditional, the scope of before, and the restrictive term of a universal quantifier (8), NDI is not (9).

(8) a. If you were anyone famous, who would you be?
   b. Before anyone arrives at my party, I will have cleaned the house.
   c. Everyone who is anyone will be at my party.

(9) a. *If John were [very diligent a student], he wouldn’t party all the time.
   b. *Before he became [very good a student], John was a very bad student.
   c. *Everyone who is [very good a student] should pass the final.

While the environments in (4)–(6) and (8)–(9) share the characteristic of nonveridicality, they differ in that the former are antiveridical as well; beyond simply failing to entail the truth of their complement, the operators in (4)–(6) entail the falsity of their complement. The definition of antiveridicality is given in (10).

(10) An operator $Op$ is antiveridical just in case $Op \ p \ N / x$ is logically valid.

The licensing condition on NDI is such that it is grammatical only under negation and without, both of which are antiveridical operators. Unlike any-NPIs, instances of NDI cannot be licensed by the broader group of nonveridical operators including the antecedent of a conditional, the scope of nonveridical before, and the restrictive term of a universal quantifier, as exhibited by the ungrammaticality of (9a–c). The distribution of elements that take part in NDI in English is reminiscent of the distribution of another set of elements that are sensitive to antiveridicality, namely, minimizers in Greek. Giannakidou (1998) discusses the distribution of these minimizers, noting that they are limited to appearing in the scope of negation and in ‘without’-clauses.

(11) a. *(Dhen) ipe LEKSI oli mera.
   not said.3sg word all day
   ‘She/He didn’t say a word all day.’
   b. . . . *(xhoris) na pi LEKSI oli mera.
      without subj say.3sg word all day
      ‘. . . without saying a word all day.’
   (Giannakidou 1998:(120a), (121b))

Note that while the distribution of NDI in English parallels that of Greek minimizers, the distribution of English minimizers is broader. The data in (i) and (ii) illustrate just one such divergence; while English minimizers are licensed by factive environments, NDI is not.

(i) I regret saying a word to him about it.
(ii) *I regret John’s being very bad a dancer.
In addition to being licensed by the overt antiveridicality exemplified by negation and *without*, NDI shares with Greek minimizers the characteristic of being properly licensed by certain indirectly antiveridical environments. Among these environments are rhetorical questions, which are assumed to be indirectly antiveridical because they give rise to a negative implicature; positive rhetorical questions entail negative responses. (12a) shows that minimizers in Greek are licensed by rhetorical questions, and (12b) shows that NDI is also licensed in this environment.7

(12) a. Pjos dhini DHEKARA ja to ti th’apojino? who give.3sg dime for the what FUT.become.1sg
   ‘Who gives a damn about what will happen to me?’
   (Giannakidou 1998:(123c))

   b. Who says John’s very good a student?

The data presented in this section suggest that a connection should be drawn between the licensing of NDI, the licensing of NPIs, and the licensing of minimizers in particular. I will return to the question of explaining the distribution of NDI in section 3. One tentative conclusion to be drawn from examining the distribution of NDI is that (anti)veridicality can license not only lexical elements, but also a construction exhibiting inversion.

To complete the description of NDI, I should mention one additional characteristic. The examples in (13) differ from normal instances of NDI in the presence of the word *of*, which intervenes between the moved degree phrase and the determiner. For all English speakers I have encountered who accept NDI, sentences like (13a–c) are at least as good as those shown in (5). Additionally, of those who do not accept plain NDI, many allow NDI with *of*.

(13) a. John is not [very good *of* a student].
   b. That’s not [that big *of* a deal].
   c. Buy a Neon without paying [very big *of* a price].

7 Another indirectly antiveridical environment in which NDI is licensed is created by sarcasm in nonnegative environments. For example, I suggest that the apparent yes/no question in (i) becomes indirectly antiveridical with the proper intonation (focus and a steep fall-rise contour on *IS*), in the sense that the speaker is asserting that the answer can only be negative. In fact, the NDI in (5c), repeated as (ii), may be best interpreted as being made possible through an indirectly antiveridical environment induced through sarcastic focus on *doubt*, rather than as being licensed by the negative implicature induced by *doubt*. This possibility is supported by the fact that NDI is not possible under certain other such verbs, for example, *surprise* (iii).

   (i) IS John very good a student?
   (ii) I DOUBT/*think that this will be [real interesting a class].
   (iii) *I’m surprised that this is [real interesting a class].
3 An Analysis of Negative Degree Inversion

To begin to understand the structure of NDI, we must explain why the DegP appears in the atypical initial position of the phrase. One possibility is that it is base-generated there; the surface word order of, for example, *very good of a student* reflects a structure in which the adjective phrase $[\text{AP good}]$ takes the prepositional phrase $[\text{PP of } [\text{DP a } [\text{NP student}]]]$ as its complement. This structure would make NDI analogous in form to certain other constructions of the form DegP P DP: for example, *not very good as a student*, *not very good for a student*, and *not very envious of his brother*. These constructions differ from NDI in a few key ways, including that they are felicitous in positive contexts, do not require an overt degree word, and do require an overt preposition. Additionally, while NDI can appear in subject position, a canonical position for nominals, other DegP P DP constructions cannot (e.g., *Not very good a student walked in* vs. *Not very good as a student walked in*). These facts suggest that while the DegP P DP constructions are adjectival in nature, the NDI examples are essentially nominal. This being the case, I propose to take the approach that the pre-determiner position of the DegP in NDI is derived rather than base-generated. In what follows, I propose a movement analysis of the surface structure of NDI.\footnote{Troseth 2004, which appeared when this squib was already under review, offers a structure for NDI in which the adjective in NDI is predicative and degree inversion is an instance of predicate inversion. I am unable to address Troseth’s proposals here, but I refer readers to her work for an alternative account of NDI.}

At first thought, a natural approach would be to view the moved DegP as landing in Spec,DP.\footnote{In this section, I assume that the pre-determiner DegP in NDI examples has moved there from a DP-internal position in an attempt to preserve uniformity of structure between NDI and the noninverted examples. See Abney 1987, Delsing 1993, and Lilley 2000 for nonmovement analyses of pre-determiner degree phrases in English and other Germanic languages. See Lechner 1999 for an analysis in which the degree phrase is not adjoined to NP, but rather is a complement of DP.} The fact that *of* can intervene between the inverted degree phrase and the determiner suggests that this is not the case, however. Discussion of related phenomena by Kennedy and Merchant (2000) can help to shed light on this issue. These authors note that the moved degree phrases in questions and comparatives may also precede an *of* element. Consider the data in (14).

\begin{enumerate}
\item [a.] [How interesting (of a play)] did Brio write?
\item [b.] [How tall (of a forward)] did the Lakers hire?
\item [c.] Bob didn’t write [as detailed (of a proposal)] as Sheila did.
\item [d.] He took [so big (of a piece of cake)] that he couldn’t finish it.
\end{enumerate}

Kennedy and Merchant 2000)
Kennedy and Merchant (2000) take the optional presence of *of* to signal the existence of a functional phrase FP dominating DP. They suggest that Spec,FP is the landing site for inverted degree phrases in questions and comparatives. The existence of such a phrase was initially proposed by Bennis, Corver, and Den Dikken (1998) as the landing site of moved NPs in nominal predicate inversion constructions.

(15) een beer van een vent  
    a bear of a man  
    (Bennis, Corver, and Den Dikken 1998)

The similarity among the NDI, question, and comparative data suggests that they should be subsumed under the same general analysis. Thus, the possibility of the presence of *of* between the moved degree phrase and the determiner indicates that the DegP has moved into the specifier position of FP in all cases. Given this approach, NDI has the structure shown in (16). On an early minimalist account of movement, inversion would be caused by the need to check strong features.¹⁰

(16) a. John is not [very good (of) a student].

b. 

Following Kennedy and Merchant (2000), I diverge here from Bennis, Corver, and Den Dikken (1998), who assume that FP is the complement of DP. Support for the approach that FP selects DP as its complement is that the former apparently imposes selectional restrictions on the latter; the DP in NDI must always be indefinite.¹¹

¹⁰ In more recent versions of the theory, different limitations are placed on the motivations for movement: for example, movement is not a requirement (and thus not possible) for feature checking. If we accept these limitations, the movement exhibited by NDI may be caused by an EPP feature on the head of FP.

¹¹ An anonymous *LI* reviewer notes that this observation can be traced to Bresnan’s (1973) discussion of the syntax of comparatives. Matushansky (2002)
In fact, this condition holds of every construction in which FP is proposed to play a role; inversion in questions and comparatives is also possible only with a DP headed by a.  

(18) a. How fast a/*the/*some/*θ car(s) do you want to buy?  
    b. John is [as good a/*the student] as Mary.

This section has stressed the similarities in linear order between NDI and other phenomena involving movement within the nominal projection. Despite their structural similarities, NDI differs from the others in that it requires a c-commanding antiveridical licenser. The next step is to explain why inversion is possible only in this environment.

One way of answering this question is to posit that the negative licenser acts to make the presence of FP possible, and that FP is impossible outside of negation. In this approach, negation does not license movement; rather, it licenses the landing site for movement. The fact that movement goes hand in hand with FP follows from this approach; if FP enters the derivation, its features must be checked. Thus, any derivation in which FP is present will necessarily exhibit DegP-movement. If we claim that FP is possible only in the presence of negation, the conditions on its presence seem to be exactly those on the presence of NPIs. In fact, we saw in section 2 that the environments in which inversion is possible are a subset of those in which NPIs are possible; namely, inversion is possible only when minimizers are present. To capture this intuition, I propose to analyze the head of FP as an NPI itself. We can reflect the fact that NDI is possible only in a subset of the canonical licensing environments for NPIs by characterizing F⁰ as sensitive to the presence of a c-commanding antiveridical operator. Thus, FP in NDI differs from FP in other constructions because only the former has features that make it sensitive to licensing by negation.

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12 Another option available to comparatives is to use a null determiner just in case the indefinite determiner a is not possible because of feature mismatch.  

(i) John and Mary are [as good students] as Kevin and Elaine.  

However, this option is not available in questions, English nominal predicate inversion, or NDI.  

(ii) a. ?John and Mary want [HOW FAST cars]?  
    b. *those idiots of men  
    c. John and Mary are not very good students.  (no NDI reading)

13 An anonymous LI reviewer raises the question of how to explain that the presence of FP, and by extension, DegP-movement, is obligatory in echo
The result is that, while all constructions with FP share surface similarities (inversion of DegP, presence of of), only in NDI is the distribution of FP limited to negative environments.

References


