On a class of not ungrammatical constructions

D. TERENCE LANGENDOEN

Brooklyn College and CUNY Graduate Center

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Langendoen and Bever (1973) contended that both expressions in (1) are ungrammatical in English, despite the acceptability of the first to native speakers of English.

(1) (a) a not unhappy person
(b) a not sad person

We came to this conclusion because we believed, first, that all grammars of natural languages should be subject to a constraint ‘M’ that no syntactic rule is able to make use of the morphological structure of lexemes (1973: 402); and, second, that we had shown that no grammar that satisfies M can distinguish the grammaticality of (1a) from that of (1b). Our exact wording of M was as follows: ‘no syntactic transformational rule is permitted to make use of the internal morphological structure of lexical items’. Since the only syntactic rules (of the standard theory, within which we were operating) that are not transformations are base-categorial rules, which by definition make no use of the internal morphological structure of lexical items, the word ‘transformational’ in our formulation of M is unnecessary. It is also misleading, since it might cause the reader to think that we had in mind only the rules of the transformational component. Rather, we meant all syntactic rules that have transformational power, including lexical-insertion rules. The constraint M, as just formulated, has been incorporated into the more recent versions of the ‘lexicalist hypothesis’ of Chomsky (1970) and is now widely accepted. It amounts to a doctrine of strict separation between syntax and derivational morphology. Since we could find an explanation in the theory of linguistic performance for the acceptability of (1a) given that it is ungrammatical, but no explanation for the unacceptability of (1b) given that it is grammatical, the conclusion followed that both (1a) and (1b) are ungrammatical, but that (1a) is nonetheless acceptable.

Both Aitchison and Bailey (1979) and Bolinger (1980) have disputed this conclusion. Bolinger categorically rejects the possibility that exemplars of a given construction can be both acceptable and ungrammatical. Aitchison and
Bailey, on the other hand, admit the possibility in principle, but claim that (1a) is not such a case and that a grammar of English that generates (1a) but not (1b) can be constructed.

The truth, I believe, lies between these two positions. It may turn out that grammars meeting the stringent requirements of the best linguistic theory (whatever that is) are capable of generating all of the acceptable constructions of each natural language. But this is not something we can know or legislate in advance. Thus, contrary to Bolinger, I prefer to remain open to the possibility of the existence of constructions in a given language whose exemplars are acceptable but ungrammatical. Bach and Harnish (1979: 198–202) also offer discussion and analysis of some other constructions of English whose exemplars are acceptable but possibly ungrammatical.

Although I do not accept Bolinger’s point of view regarding acceptability and ungrammaticality, I do accept his observation that some of the expressions of a type that Bever and I considered unacceptable are in fact acceptable to native speakers of English, for example *a not inordinate amount of money*. Some of Bolinger’s observations are included in the discussion toward the end of this paper. However, I do not take his claim that the relative acceptability of *a not, shall we say, sad turn of events* shows that that construction is grammatical to be correct. On the contrary, the amount of ‘prosodic schmaltz’ (a happy locution for which I am indebted to Bolinger) needed to make that phrase acceptable suggests to me that it is ungrammatical.

Aitchison and Bailey, on the other hand, show nothing more than what Bever and I had already shown, namely that there are grammars of English *not satisfying* M that generate (1a) but not (1b). However, their approach to the problem of finding a grammar that generates (1a) but not (1b) can be used to show how such a grammar *also satisfies* M can be constructed. They point out that the only syntactic rule of English that Bever and I claim must make use of the morphological structure of lexemes, if the grammatical status of (1a) is to be distinguished from that of (1b), is RELATIVE-CLAUSE REDUCTION. They then propose that this rule not be considered part of the grammar of English at all, but rather a kind of heuristic device, called a VIA RULE, that merely expresses ‘a correspondence between two constructions’ (1979: 266). To generate (1a), they propose the lexical-insertion rule (2).

\[ (2) \quad \text{NEG} \ un-\text{ADJ} \rightarrow \text{not} \ un-\text{ADJ} \]

To prevent the derivation of (1b), they suggest (but do not explicitly propose) the lexical insertion rules in (3).

\[ (3) \quad (a) \quad \text{NEG} \ happy \rightarrow \text{unhappy} \]
\[ \quad \text{NEG} \ sad \rightarrow \text{happy} \]

The resulting grammar has no rule of the transformational component that violates M, but it does have several lexical-insertion rules that do. Thus
Aitchison and Bailey's proposed grammar for generating (1a) but not (1b) also violates M.\textsuperscript{2} However, by turning their lexical analysis around, so that it limits the introduction of prenominal adjectives following \textit{not}, rather than limiting the introduction of \textit{not} preceding adjectives, we can come up with a demonstration of how a grammar of English that genuinely satisfies M can be constructed that generates (1a) while at the same time does not generate (1b). Moreover, this ordering of the rules of lexical insertion is consistent with the principles governing lexical insertion in the standard theory (Chomsky, 1965).

Suppose that prenominal attributive adjective phrases are introduced directly by the base phrase-structure rule schema (4).\textsuperscript{3}

\begin{equation}
\text{NP} \rightarrow (\text{DET}) (\text{ADJP}) \text{N}
\end{equation}

Adjective phrases introduced by (4) may then be expanded by (5).

\begin{equation}
\text{ADJP} \rightarrow (\text{NEG}) \text{ADJ}
\end{equation}

Among the categorial structures generated by rules in (4) and (5) is (6).

\begin{equation}
\begin{array}{c}
\text{NP} \\
\text{DET} \\
\text{ADJP} \\
\text{N} \\
\text{NEG} \\
\text{ADJ}
\end{array}
\end{equation}

The first lexical-insertion rule that applies to (6) is the rule that inserts \textit{not} under the category NEG, since that category is the modifier of the most deeply nested constituent in (6). We may now suppose that whether a particular prenominal attributive adjective occurs in the environment of a negative element is determined by a selection restriction.\textsuperscript{4} Adjectives like \textit{unhappy} are specified as [+\textit{not} \_N] while adjectives like \textit{sad} are specified as [−\textit{not} \_N]. Accordingly, \textit{unhappy}, but not \textit{sad}, may be inserted under the category ADJ in (6). On the next cycle, the determiner \textit{a} and the head noun \textit{person} may be inserted, completing the derivation of (1a). Since \textit{sad} cannot be inserted under the category ADJ in (6), there is no derivation of (1b) with respect to the fragment of English grammar just proposed.

This solution to the problem of finding a grammar that generates phrases like (1a), but not those like (1b), is, of course, not the whole story. It remains to

\textsuperscript{2}Quite possibly, Aitchison & Bailey might have been misled by our original formulation of M, and hence thought that lexical-insertion rules are exempt from it.

\textsuperscript{3}We do not consider the problem of determining the conditions in English under which attributive adjective phrases follow, rather than precede, the nouns they modify, since it is irrelevant to the questions we are investigating here.

\textsuperscript{4}Not a strict subcategorization feature, first since \textit{not} is a lexical item, and second since the environment in which the adjective is inserted is not 'local' to ADJP.
give an account of the distribution of the selectional features \([+not\ _N]\) and \([-not\ _N]\) among the adjectives of English.

The first generalization that must be accounted for is that scalar adjectives that are formed by the addition of one of the negative prefixes un, in, and dis, and perhaps some others, to an adjective stem that occurs independently as a lexeme, and whose meaning is a compositional function of the meanings of the prefix and the stem, are almost all specified as \([+not\ _N]\). *Impious* is an exception to this generalization. The second is that nonscalar adjectives, regardless of their morphology, are all specified as \([-not\ _N]\). Accordingly, both married and unmarried have this specification. Finally, of the remaining scalar adjectives, most, but not all, are specified as \([-not\ _N]\). For example, sad, careless, grateful, untoward, insolent, and industrious, among many others, are all specified as \([-not\ _N]\), while surprising and inordinate, along with a few others, are specified as \([+not\ _N]\). As Bolinger points out, the specification \([+not\ _N]\) is almost always associated with an adjective in which the initial syllable is unstressed, but this condition is neither necessary nor sufficient. On the one hand, infinite is specified as \([+not\ _N]\), despite its initial stress; while on the other, industrious is specified as \([-not\ _N]\), despite its lack of initial stress.

The subcategorization of adjectives as \([\pm not\ _N]\) is paralleled by the subcategorization of sentence adverbs as \([\pm not\ _N]\). Sentence adverbs such as unexpectedly and infrequently, which are formed by the addition of the suffix ly to a negatively-prefixed adjective, are specified as \([+not\ _N]\). Of the remaining sentence adverbs, only surprisingly is specified as \([+not\ _N]\). The rest, including the near synonym amazingly, are all specified as \([-not\ _N]\).

We turn now to a formal account of how the subcategorization features \([\pm not\ _N]\) are assigned to adjectives and \([\pm not\ _N]\) to sentence adverbs. Let us call a lexeme ‘simple’ if it does not have a lexeme as a proper part, and ‘complex’ otherwise. Thus, for example, sad and grateful are simple lexemes – note that a simple lexeme need not be monomorphemic – while unhappy (containing the lexeme happy) and surprising (containing the lexeme surprise) are complex ones. Simple lexemes are assigned subcategorizational (including selectional) features directly, whereas complex lexemes are assigned those features on the basis of the features of the lexemes they contain. Both the direct assignment of features to simple lexemes and the indirect assignment of features to complex lexemes are carried out by rules of the word-formation component of the grammar.\(^5\) The fact that simple adjectives in English, with few exceptions, are specified as \([-not\ _N]\) suggests that there is a general rule in English that assigns that feature to simple adjectives. Similarly, there are

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\(^{5}\) See Bresnan (1978: 21) for an informal statement of a rule for assigning subcategorizational features to past participles in English on the basis of the subcategorization features of the verbs they contain.
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general rules that assign the feature [+not ___N] to complex adjectives of the form (7), and the feature [-not ___N] to complex adjectives not of that form.\(^6\)

\[
\text{(7) } \text{[ADJ } [\text{ADJ } Y, [+ ___N], \ldots ]_{\text{ADJ}} \ldots ]_{\text{ADJ}}, \text{ where } X \text{ is one of the prefixes in, un, dis, and a few others, and } Y \text{ is a scalar adjective.}
\]

The result of applying the relevant rule to complex adjectives of the form (7) is given in (8).

\[
\text{(8) } \text{[ADJ } X [\text{ADJ } Y, [+ ___N], \ldots ]_{\text{ADJ}} [+not ___N], \ldots ]_{\text{ADJ}}
\]

Nevertheless, a few complex adjectives of the form (7), such as impious, are idiosyncratically assigned the feature [-not ___N]; and a few complex adjectives not of the form (7), such as surprising and inordinate, are idiosyncratically assigned the feature [+not ___N].

These word-formation rules make a subtle prediction concerning structurally ambiguous complex adjectives such as unbendable. They assign to that adjective the structures shown in (9) and (10).

\[
\text{(9) } \text{[ADJ } [\text{vbend } v]_{\text{v}} \text{able, [+ ___N], [-not ___N], \ldots ]}_{\text{ADJ}} \text{ ‘able to be unbent’}
\]

\[
\text{(10) } \text{[ADJ[un } [\text{vbend } v]_{\text{able, [+ ___N], [-not ___N], \ldots ]}_{\text{ADJ}} [+ ___N], [+not ___N], \ldots ]_{\text{ADJ}} \text{ ‘unable to be bent’}
\]

In (9), the feature [-not ___] is assigned by the rule for complex lexemes that are not of the form (7). In (10), the feature [-not ___] is assigned by the same rule to the contained adjective stem bendable, but the feature [+not ___N] is assigned to the lexeme as a whole by the rule for complex lexemes that are of the form (7). Accordingly, while sentence (11) is ambiguous, (12) is not; in the latter, unbendable has only the interpretation ‘unable to be bent’.

\[
\text{(11) } \text{They handed me an unbendable ruler.}
\]

\[
\text{(12) } \text{They handed me a not unbendable ruler.}
\]

Similar word-formation rules can be set up to account for the assignment of the features [±not ___] to sentence adverbs. The feature [+not ___] is assigned to all sentence adverbs that are of the form (13), and the feature [-not ___] is assigned to all sentence adverbs that are not of that form.

\[
\text{(13) } \text{[ADV } [\text{ADJ } X, [+not ___N], \ldots ] \text{ly } \ldots ]_{\text{ADV}}
\]

According to this rule, unexpectedly, infrequently, and surprisingly are all assigned the feature [+not ___], while sadly, frequently, and amazingly are all assigned the feature [-not ___]. The specification of the sentence adverb surprisingly as [+not ___], rather than being exceptional, is a consequence of

\[\text{[6] The feature [+ ___N] in (7) is associated with the contained adjective } Y, \text{ and is not a feature of the entire adjective } XY.\]
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the fact that the adjective stem it contains is a lexeme that is idiosyncratically specified as [+not _N]. One may further wonder why the subcategorization of sentence adverbs depends on the subcategorization of the adjective stems they contain. The reason may be the semantic equivalence of sentence adverbs to expressions in which the adjective occurs prenominally (for example, infrequently can be glossed 'at infrequent intervals').

REFERENCES