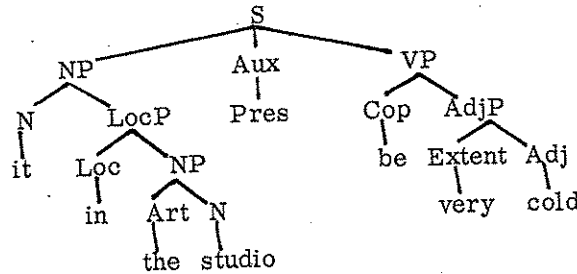




- (15) It's a long way from here to the moon.
- (16) It's too soon yet for us to tell whether the patient will recover.

Let us take up each of these possibilities in turn, starting with sentences like (14), in which we maintain that the expletive is in construction with locative phrases in their underlying phrase markers.

If we take as the underlying phrase marker for (14) the following:



we can obtain the derived phrase marker for (14) by a rule of extraposition which is exactly like that of Rule (4), except that where (4) mentions the constituent S, this rule mentions the constituent LocP. We state that rule as (18).

(18) LOCATIVE EXTRAPOSITION TRANSFORMATION (obligatory)

$X_1$  [[it]<sub>N</sub>, LocP, ]NP  $X_2$

1      2      3      →      1 ∅ 3 + 2

Upon the application of Rule (18), the locative phrase becomes merely a constituent of the main sentence, and as such becomes more or less freely movable. If another sentence adjunct, such as a time phrase, is present, the extraposed locative phrase is free to occur either before or after it, as in:

- (19) It was very cold in the studio yesterday.
- (20) It was very cold yesterday in the studio.

The locative extraposition transformation is obligatory. If the locative preposition in the extraposed locative phrase is one of the designated elements in, on or at, and if it is followed by a noun phrase, then the locative phrase may optionally replace the expletive. Following Fillmore's suggestion concerning prepositions which introduce noun phrases in subject position, the preposition is then deleted, leaving the noun phrase of the locative phrase as the derived subject of such sentences.<sup>5</sup> The expletive replacement by locative phrase transformation may be stated in

the following way; it is similar in form to Rule (8), but is simpler to state, and is optional rather than obligatory.

(21) EXPLETIVE REPLACEMENT BY LOCATIVE PHRASE TRANSFORMATION (optional)

$X_1$ , [[it]<sub>N</sub>]NP,  $X_2$ , [(in, on, at) NP] LocP

1      2      3      4 → 1 ∅ + 4 3 ∅

According to Rule (21) and the subsequent deletion of the locative preposition, we obtain the following sentence, derived from the very same underlying phrase marker (17) which underlies (14):

- (22) The studio is very cold.

The derivation of (22) from an underlying phrase marker in which the subject is of the form expletive plus the locative phrase in the studio accords with our understanding of (22), that the studio as an object is cold. Thus (22) contrasts both semantically and syntactically with:

- (23) The stone is very cold.

which has no alternate version:

- (24) \*It is very cold  $\left\{ \begin{array}{l} \text{at} \\ \text{in} \\ \text{on} \end{array} \right\}$  the stone

The underlying, as well as the derived, subject of (23) is the stone, and unlike (22), the sentence is understood to mean that the stone as an object is cold. It will be observed that there are indeed sentences which are ambiguous in this regard; consider for example:

- (25) The oven is very hot.

Sentence (25) can mean either that as an object the oven is hot (if you touch it you will get burned), or that as a container it is hot (you can bake bread in it). Under the latter interpretation, it is synonymous with the sentence:

- (26) It is very hot in the oven.

These observations help to confirm the syntactic analysis which we have just given for sentences like (14).

In case the locative phrase which is extraposed by Rule (18) is not introduced by one of the prepositions designated by Rule (21), and/or it does not contain a noun phrase, then of course Rule (21) cannot be applied, since its structural conditions are not met. The following sentences therefore have no synonymous counterpart in which the expletive is replaced:

- (27) It's dirty underneath the bed.
- (28) It's crowded between the sheets.
- (29) It's hot out today.

- (30) It's pleasant in here
- (31) It's busy in town this week.

If the extraposed locative phrase is the locative word out, it may optionally be deleted; thus sentence (29) has what seems to me to be a synonymous counterpart in:

- (32) It's hot today.

Noun phrases of the form expletive plus locative phrase can serve as subjects of predicates whose head is either (i) an adjective designating an accidental property (in the Aristotelian sense) of locations, surfaces or containers, (ii) a nominal construction such as bad weather, tough sledding,<sup>6</sup> or (iii) a verb designating either a meteorological phenomenon, such as rain, snow, blow, clear up, warm up, or physical sensation such as hurt, itch, ache.

Certain of the meteorological verbs appear to be selected by subjects of the form expletive plus the designated locative element out. Since that element is deletable, we obtain immediately the familiar and not at all illogical (as Longacre appears to believe)<sup>7</sup> sentences:

- (33) It's raining.
- (34) It snowed yesterday.

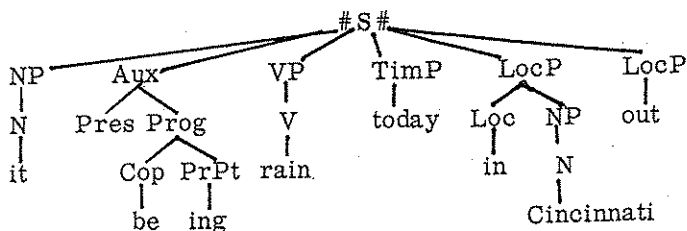
In this connection, it is important to notice that despite the existence of Rule (21) in the grammar of English, we have only the sentence:

- (35) It's raining today in Cincinnati.

and not:

- (36) \*Cincinnati is raining today.

The derivation of (36) can be prevented by maintaining that in Cincinnati is not, in fact, the extraposed locative phrase adjunct to the expletive at all, but that rather out is. Upon application of the locative extraposition transformation, Rule (18), to the phrase marker underlying (35), we obtain:



Rule (21) cannot apply, however, to (37) because the final locative phrase, which is the extraposed one, is not of the proper form. To obtain (35), of course, the out must be deleted.

Sentences whose main verbs are verbs of physical sensation

present too many problems of analysis for me to consider them in detail here. Let me simply comment that the rule of expletive replacement by locative phrase appears to apply obligatorily in such sentences. Thus, we have:

- (38) It hurts all over.
- (39) I hurt all over.
- (40) My stomach hurts (me).

but not:

- (41) \*All over hurts (me).
- (42) \*It hurts (me) in my stomach.
- (43) \*I hurt in my stomach.

If in sentences (38) and (39), all over is taken to be the locative phrase adjunct to the subject expletive it, we can account for such sentences, provided we also posit a rule which obligatorily replaces the expletive by the direct object of hurt (which is itself optionally chosen). A verb such as ache obligatorily occurs with a direct object, so that only the counterpart to (39) with the main verb ache is grammatical. In (40), in my stomach may be considered the locative phrase adjunct to the subject expletive. As noted, that adjunct obligatorily replaces the expletive, thus blocking the derivation of (42) and (43). Sentence (41) is blocked because its locative phrase is not of the form prescribed by Rule (21).

As a final comment regarding noun phrases made up of the expletive plus a locative phrase, we note that they may also be selected as objects of verbs (particularly causatives of adjectives like hot, with which they occur as subjects). This fact is illustrated by the passive sentence:

- (44) It isn't heated in the attic during the winter.

which corresponds to an active sentence such as:

- (45) We don't heat the attic during the winter.

I cannot go into the details regarding noun phrases made up of the expletive plus either a measure phrase or a time phrase adjunct, except to point out (i) they appear only to serve as subjects of sentences and (ii) the two transformational rules of extraposition and expletive replacement need to be broadened to allow their application to sentences containing such noun phrases. Concerning measure phrase adjuncts, note that a rule of extraposition is required to move the measure phrase from here to the moon to sentence-final position in sentence (15). Furthermore, to the moon may optionally replace the expletive by a rule comparable to (21), resulting in the sentence:

- (46) The moon is far from here.

We must also allow for the appearance of away in sentences like

(46), for example:

(47) The moon is far away from here.

I am not certain as to what the best means for handling this fact is.

Finally, concerning time adjuncts to the expletive, we note that versions of extraposition and expletive replacement also apply to sentences in which such noun phrases are chosen as subjects, and that the designated time words now, then may also replace the expletive. We are able to obtain both:

(48) It is a good time now to sue for peace in Vietnam.

(49) Now is a good time to sue for peace in Vietnam.

When the head of the predicate of such sentences is an adjective, then that adjective (i) must be either early, late or soon, (ii) if the adjective is early, then the time adjunct to the expletive is yet (any more or any longer in negative sentences), (iii) if the adjective is late, then the time adjunct is already (yet in negative sentences), and (iv) if the adjective is soon, then the adjective itself must be modified in a rather complicated way and the choice of yet or already depends upon the choice of that modifier. Thus we have:

(50) It's early yet.

(51) It's late already.

(52) It isn't early any more/any longer.

(53) It isn't late yet.

(54) = (16) It's too soon yet for us to tell whether the patient will recover.

(55) It's soon enough already for the doctor to remove the stitches from your cut.

It is not yet obvious to me how to express in terms of the lexical representations of the items early, late, soon, already, yet, any more, any longer, the various selectional restrictions which hold among them. This much, however, is clear. The underlying phrase markers for these sentences have as subject noun phrases the expletive plus the appropriate time word adjunct. I am also reasonably convinced that the item yet which appears in affirmative sentences with early and in negative sentences with late is the same lexical item, with a meaning roughly statable as 'it is time before some specified point in time'.

This concludes my survey of the various constructions which the expletive it in English can enter into. Having dealt at some length with the transformational apparatus required to handle sentences in which the expletive appears, at least in their underlying phrase markers, let me now take up briefly the required phrase

structure and lexical apparatus. Disregarding those constituents which appear preminally in the noun phrase, we may view the phrase structure expansion of the noun phrase as being statable by the rule:

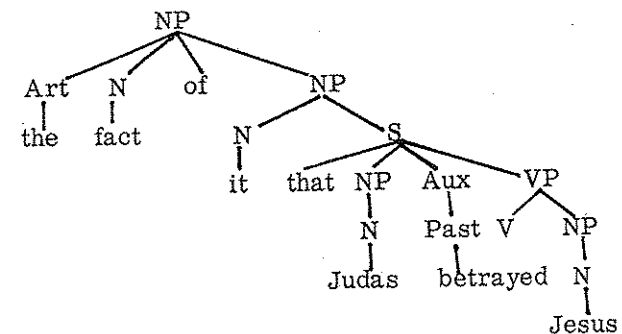
$$(56) \text{ NP} \rightarrow \dots \text{ N} \left\{ \begin{array}{l} \text{S} \\ \text{LocP} \\ \text{MeasP} \\ \text{TimP} \\ \text{of NP} \end{array} \right.$$

The expletive noun it may be lexically designated by the strict subcategorizational complex [+\_\_S, +\_\_LocP, +\_\_MeasP, +\_\_TimP, -\_\_of NP], and it can be argued that it alone is marked 'plus' for the features pre-Sentence, pre-Locative Phrase, pre-Measure Phrase and pre-Time Phrase. It is almost certainly true that of all nouns, only the expletive it is marked [+\_\_S]; nouns such as fact which had been thought to be so marked on the prima facie evidence of such expressions as:

(57) the fact that Judas betrayed Jesus  
are really marked [+\_\_of NP]. Compare with (57) the following expression:

(58) the fact of Judas' betrayal of Jesus  
The underlying phrase marker for the noun phrase of (57) is thus really something like:

(59)



Again on prima facie evidence, one might be persuaded that certain abstract nouns are marked [+\_\_LocP], for example event, situation; cf.

(60) Some recent events in Africa are difficult to understand

(61) The situation at headquarters was hopeless.

and that certain nouns like distance are marked [+\_\_MeasP]; cf.

(62) The distance from here to the moon is rather great. I believe however that there is fairly strong evidence for analyzing these expressions differently, and that the nouns are not so entered in the lexicon. In fact, one ultimately may wish to consider these nouns and others like them to be nominalized verbs-- whether or not this will be necessary is not yet clear,<sup>8</sup> but the evidence does clearly point to the very unique status of the expletive it in the English lexicon. One can say of it quite simply that it is a 'device' for making sentences, and locative, measure and time phrases into underlying subjects, and in the case of sentences and locative phrases into underlying objects.<sup>9</sup>

## FOOTNOTES

- 1 Peter S. Rosenbaum; The Grammar of English Predicate Complement Constructions, Ph.D. Dissertation, Massachusetts Institute of Technology, 1965. (In preparation under the title Principles of Complex Sentence Formation in English.)
- 2 Ibid.
- 3 The transformation is noun phrase local (in fact strictly local) in the sense of Noam Chomsky, Aspects of the Theory of Syntax, Cambridge: The MIT Press, 1965, 215. The notation used in this paper for formulating transformations is based on the assumptions that they apply to sentences (i.e. that they are sentence local) unless otherwise specified and that they make use only of the elementary operations of deletion, adjunction and substitution.
- 4 This is not, perhaps, quite a correct statement of the rule (it would prevent us from deriving, for example, John appears to me to be drunk) but it is satisfactory for my purposes. The expletive may, in certain cases, also be replaced by a post-verbal noun phrase of the infinitive, as in the now famous sentence John is easy to please.
- 5 I differ from Fillmore in that I distinguish between the categories LocP and NP. He would consider a locative expression to be a noun phrase which simply happens to be introduced by a certain kind of preposition.
- 6 This is a very limited pattern in English. Some speakers may even reject such sentences as It's bad weather out today.
- 7 Cf. Paul M. Postal, 'Review of Robert E. Longacre, Grammar Discovery Procedures', Int. J. Amer. Ling. 32 (1966), 98. Postal presents there informally a rather different analysis from the one I suggest here for such sentences as It's raining.

etc. I suspect that it would be difficult to generalize Postal's suggestion to cover the various kinds of sentences discussed in this paper, but I do not wish to prejudge the case, not having seen how Postal would choose to handle them within the framework he suggested.

- 8 On the derivation of nouns from verbs even where there is no 'real' verb in the lexicon to serve as the basis for the derivation, see George Lakoff, On the Nature of Syntactic Irregularity, Report No. NSF-16 of the Harvard University Computation Laboratory, Cambridge, December 1965.
- 9 This last remark is of some interest in connection with the claim of George Lakoff of Harvard and John Ross of MIT (not yet published to my knowledge), that the constituents which comprise the verb phrase in English are extremely limited-- namely the verb itself, its object or objects and locative or directional phrases. If their claim is correct, then the fact that noun phrases made up of the expletive plus measure phrases or time phrases cannot occur as objects of verbs in English can be shown to be not at all accidental. We could say, for example, that the object noun phrase of a verb cannot directly introduce a constituent phrase which itself cannot freely occur as an immediate underlying constituent of the verb phrase.