

ENTAILMENT RULES FOR MODAL PARTICLES
IN
WESTERN BUKIDNON MANOBO*

RICHARD E. ELKINS

Summer Institute of Linguistics

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In his article, 'Entailment Rules in a Semantic Theory,' C. J. Fillmore (1965:60-82) discusses inadequacies of the semantic theory of Katz and Fodor (1963:170-210). One inadequacy, says Fillmore, is its inability to account for the so-called relational concepts. Another inadequacy is the failure to account for the problem of entailment in sentences which concerns us in this study. Fillmore in a footnote identifies the notion of sentence as referring more properly in his article to 'proposition.'

Since 'proposition' is a semantic rather than a grammatical designation, to avoid confusion it is necessary to state that the rules which follow operate on the grammatical string or clause (which in this study is called Topic + Comment) rather than the underlying semantic string or proposition. The Topic + Comment string in view in these rules is always that which represents the main proposition, or which manifests the main clause, of a sentence.

Fillmore distinguishes between entailment rules and ordinary semantic rules. Ordinary semantic rules are those provided by the Katz and Fodor theory together with some further rules which he suggests to account for relational concepts. 'Entailment rules,' he explains (1965:60-82), 'can be described as operating in the following way: There is a sentence X which cannot by itself be interpreted by the ordinary semantic rules. Based on the grammatical structure of X, the entailment rules will convert X into a set of sentences

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Y such that each of these sentences can be interpreted by the ordinary semantic rules. The semantic interpretation of the set of sentences Y, then, is provided as the semantic interpretation of the sentence X.'

In this study, entailment rules are applied to certain Western Bukidnon Manobo clauses which contain particles manifesting modal slots. These slots occur either in a prepredicate position in a clause or in the various clause level slots in the substring which is referred to as the adjunct cluster (1930). All of the particles included in this study lend to a proposition what Fillmore designates as a 'sign-changing' property. In his treatment of entailment for the English word *even* he says (1965:60-82):

'It is true here and with several of the other entailment rules . . . that if the original sentence is negative, one of the entailed sentences is positive; if the original sentence is positive, the entailed sentence is negative. This property I shall call 'sign-changing,' and I'd like to deal with it by abstracting from the sentences the grammatical properties 'negativity/positivity', representing them in the rules with a variable ' α '. In a single entailment rule, then if ' $-\alpha$ ' has one of these values, ' α ' has the other.

It is on the basis of this sign-changing property that these Manobo particles are identified as modal.

1. PRE-PREDICATE MODALS

1.1 THE CONCESSIONAL MODAL

The concessive modal, *minsán* 'even' or 'even though,' may occur as the relator of a relator axis clause which manifests a concessive margin to a sentence nucleus (Elkins 1968). *Minsán* may also occur as the relator of a relator axis phrase within a sentence nucleus. In either case it lends a sign-changing property to the proposition which the sentence nucleus represents.

- (a) *Minsan is dagat ne nengemezahan.*
 even Topic-sea dried up
 'Even the ocean dried up.'
- (b) *Minsan kerayew he lelima is paa ne zutun.*
 even carabao five Topic-leg there
 'Even a carabao with five legs is there.'
- (c) *Su minsan heini is binevey he midteṙuan*
 for even this Topic-basket used for container
din ne midtuvù en.
 he sprouted already
 'For even the basket he used for a container sprouted.'
- (d) *Minsan meuyet kiw mekeuma ziyà te Dabew,*
 even though long time Topic-we arrive there Davao
ne kené e zed egkeveley.
 not Topic-I still get tired

'Even though we take a long time reaching Davao, I still won't get tired.'

The sign-changing property of *minsán* is based on an assertion and an opposite general expectation. For example, (a) above entails the fact that 'the ocean dried up.' It also entails the opposite expectation, i.e., we would not expect that the ocean would dry up.

The entailment for these propositions containing *minsán* may be expressed by the following sign-changing rule:

minsán + Topic + Comment entails:

$\left\langle \begin{array}{l} \alpha \text{ (Topic + Comment)} \\ \text{expectation } (-\alpha \text{ (Topic + Comment)}) \end{array} \right\rangle$
 Where: $-\alpha$ = negative if α is positive
 $-\alpha$ = positive if α is negative

1.2 THE SURPRISE MODAL

The surprise modal, *nasí*, occurs in a prepredicate position in clauses which express an outcome of something mentioned in a previous clause or sentence. *Nasí* indicates that the outcome is highly unexpected.

- (a) *Ne ebpurungan ku ϕ te kebpekaan*
 take special pains I Topic-he to feed
iyán nasi ed-iseq egasa ϕ
 but surprise continues grows thin Topic-he
 'I take special pains to feed him but what do you know, he continues growing thinner'!
- (b) *Impaawá ku ϕ ne nasi*
 turned him loose I Topic-he and surprise
mibpelaryuy ϕ !
 ran away Topic-he
 'I turned him loose and what do you know, he ran away'!

The entailment of clauses containing a prepredicate *nasí* may be expressed by the following rule:

nasí + Comment + Topic entails:

$\left\langle \begin{array}{l} \alpha \text{ (Comment + Topic)} \\ \text{Strong expectation } (-\alpha \text{ (Comment + Topic)}) \end{array} \right\rangle$

2. MODALS IN THE ADJUNCT CLUSTER

'The adjunct cluster designates a substring of clause level constituents which occur in a fixed order relative to each other and which are permuted as a unit. Each member modifies the clause in some way. The members do not relate to each other in this function but do act in a positional order, thus "clustering" (Elkins, 1970). The adjunct cluster follows the predicate but is permuted to a prepredicate position when co-occurrent with certain prepredicate particles (Elkins, 1970).

2.1 THE RHETORICAL QUESTION MODAL

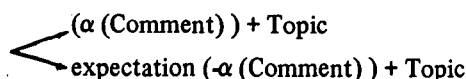
Questions containing the rhetorical question modal, *bes*, are rhetorical and contain a sign-changing property which involves a position entailment and a negative expectation of that entailment.

- (a) *Dekelà bes is bulawan ni makut?*
 much Q Topic-gold of Makut
- (b) *Metau ke ves,*
 skilled Topic-you Q
 'So you know how do you?'
- (c) *Nekeuma ves si Anggam?*
 arrived Q Topic-Uncle
 'So Uncle arrived did he?'

The sentence in example (a) entails the fact that 'Makut has a lot of gold' and also the fact that the speaker had expected that Makut did not have a lot of gold.

The entailment in this and other sentences containing *bes* may be expressed by the following rule:

Comment + *bes* + Topic entails:



2.11 BES PLUS IRONY

The addition of irony to a proposition containing *bes* is expressed by a change of intonation. The intonation pattern for a *bes* proposition without irony is as follows:

2 3 4 1
metau ke ves? 'So you do know how do you?'
 skilled Topic-you Q

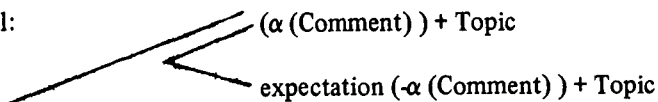
The intonation for a *bes* proposition with irony is:

2 3 4 1
metau ke ves? 'So you think you know how.'
 skilled Topic-you Q

This may be expressed by the following rule:

Comment + *bes* + Topic + irony entails:

kernel:



derived:

(¬α (Comment)) + Topic

2.2 THE OPTATIVE MODAL

The optative modal, *pezem*, expresses frustrated inclination.

- (a) *Impetunghà . e zed pezem ni Ina.*
 send to school Topic-I just Mother
 'Mother wanted to send me to school (but she couldn't).'
- (b) *Kinahanglan pezem he kenè te en edhimetayan*
 necessary not we now kill
wey egkeenen ϕ :
 and eat Topic-it
 'We shouldn't kill and eat it (but we do).'
- (c) *Egenat en pezem is ed-angey ki Juan.*
 will leave now Topic-the one who will for John
 'The one who is going for John wants to leave now (but he can't).'

Entailment in propositions which contain *pezem* may be expressed by the following rule:

(Comment + *pezem*) + Topic entails:
 <math display="block">\begin{cases} \text{inclination } (\alpha (\text{Comment})) + \text{Topic} \\ \neg(\alpha (\text{Comment})) + \text{Topic} \end{cases}

2.3 THE OPPOSITION MODAL

The opposition modal, *mulà* indicates that whatever the comment asserts about the topic of the clause in which it occurs, an opposite assertion is true of some other topic.

- (a) *Dini zed mulà mebayà si Lena.*
 here only oppos passed Topic-Lena
 'Lena passed by here (someone else didn't).'
- (b) *Kenà dey mulà keniyan egkeka-an.*
 not we oppos Topic-that able to eat
 'We are not able to eat that (we are able to eat something else).'
- (c) *Kenè ki mulà ebpekeulaying.*
 not Topic-we two oppos able to sing the Ulaging
 'We are not able to sing the Ulaging (someone else is able).'

Entailment in sentences containing *mulà* is expressed by the following rule:

Comment + *mulà* + Topic entails:
 <math display="block">\begin{cases} (\alpha (\text{Comment})) + \text{Topic} \\ \neg(\alpha (\text{Comment})) + \text{some other Topic} \end{cases}

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