# Supplementation of Opposites in Simple Predicate Expansion 

By YAO SHEN

The following summarizes the occurrences $(+)$ and the non-occurrences(-) of both kinds of strings in their internal relationships.


There is a hierarchy of string formations among the six sets of ( + ) and ( - ). A continuous string ranks higher than a discontinuous one the following member of which is suffixed to the following member of a continuous string. Continuous string B + V ranks first (1); it attests the possibility of string formation with the verb which is the central reference in the predicate. ${ }^{2}$ Sentence sets with parallel predicates rank next. The set in which the members of preceding $B$ have full participation and are stressed (2) ranks higher than the set in which those of preceding $B$ have partial participation and are unstressed (3). A string in a predicate, continuous or discontinuous, begins with B (4). Following member $B$ which ends a continuous string (5) ranks higher than following member $-N$ which ends a discontinuous string (6). The last -N in an expanded predicate occurs after the verb and ends the predicate. The above tabulation is re-arranged accordingly.

|  | cin | yili | do | have | be |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. ( + V) | + | + | + | + | + |
| 2. streased | + | $+$ | + | + | + |
| 3. unstrasaed | + | $+$ | - | $+$ | + |
| 4. E ( +B ) | $+$ | $+$ | - | $+$ | + |
| 5. ( $B+$ + ${ }^{\text {a }}$ | - | - | - | $+$ | + |
| 6. (B+) -H | - | - | - | 4 | + |

In both the formulas and the tabulation, there are redundancy and complementation. Following members $V$ and $B$ in continuous
string formula $\mathrm{B}+\mathrm{C}_{\mathrm{B}}^{\mathrm{V}}$ are morphologically formed and mutually exclusive. They can be represented by M , as either V or $\mathrm{B} . \mathrm{B}+\mathbf{V}_{\mathbf{B}}$ can be reduced to $B+M$. Following members -N and $-\phi$ are phonologically formed and mutually exclusive. They can be represented by -F , as either -N or $-\mathrm{Q} . \mathrm{B}+\mathrm{N}$ can be reduced to $\mathbf{B +}-\mathrm{F} . \mathrm{B}$ is redundant in $B+M$ and $B+-F$. Continuous string $B+M$ and discontinuous string $B+-F$ are combined to form $B+-M$

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A 2 -member string begins with a word from function words, Group B (B) which forms a continuous string with a following member morphologically (M), and a discontinuous string with a different following member phonologically (-F). The phonologically formed part (-F) of a discontinuous string is suffixed to the morphologically formed part (M) of a continuous string. A 2-member string is a sequence of three parts with $B$ (function

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words Group $B$ at the beginning), $M$ (a morphologically formed part in the middle), and -F (a phonologically formed final). $B+M$ is re-arranged to $B+M-F$.
$-F$
$B+M-F$ does not account for the information that when M occurs as V , do participates, and the preceding $B$ is stressed. Futhermore, 1 and 2 are redundant. Preceding $B$ in 1 and 2 is reduced and is marked, B. When M occurs as B, do does not participate, and the preceding $B$ is unstressed. Similarly, 3 and 4 are redundant. Preceding B in 3 and 4 is reduced and is unmarked, B. B $+\mathrm{M}-\mathrm{F}$ is re-formulated as
$\mathrm{B}+\boldsymbol{\mathrm { M }}-\mathrm{F} . \mathrm{M}$ ends a continuous string; -F ends
$\mathrm{B}+$ a discontinuous string. They are following members in each case. In addition, they ( 5 and 6) are redundant. $M$ does not occur without $-F$ as the phonologically formed final. Following members $M$ and $-F$ are reduced to $F$. Previous $\underset{B+}{B+}$ M-F is finally formulated as $\underset{\mathbf{B}+\boldsymbol{+}}{\mathbf{B}}$, the grammatical formula that operates predicate expansion.

The following is the reduced tabulation of the occurrences ( + ) and non-occurrences ( - ) of be, have, do, will, and can in predicate expansion with the features in the final formula $\underset{\mathbf{B}}{\mathbf{B}}+\boldsymbol{F}$ for both kinds of strings in internal relationship.

| can will do have be |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{B}$ | + | + | + | + |
| $\mathbf{B}$ | + | + | - | + |
| $\mathbf{F}$ | + | + | + | + |

An expanded predicate has both external and internal relationship. The external relationship, subject agreement ( S -a), is in the first word of an expanded predicate. S-a is added to the previous tabulation containing information only on the internal relationship of string formation.


The above is one form of the final tabulation of the three auxiliaries and the
two modals in predicate expansion. It begins with S-a and ends with $F$.

Another form of the final tabulation lists $S$-a first; S-a marks the beginning of predicate expansion. $F$ is given next; $(+)$ or (-) F after the verb terminates predicate expansion.


To observe the principle of simplicity, $\mathrm{S}-\mathrm{a}$ should be excluded in either form, since expanded predicates begin with a word from function words Group B. B or B includes the information of S -a. For the purpose of tabulating details, $S$-a is included, since deletion of $\mathrm{S}-\mathrm{a}$ will also delete the information that in $\mathrm{S}-\mathrm{a}$, do ( + ) behaves like an auxiliary ( + ) rather than like a modal $(-)$. This behavior is different from that of do in forming discontinuous strings ( F ) when $d o(-)$ is like a modal (-) rather than an auxiliary ( + ). In forming continuous strings, when $B$ is stressed (B), do ( + ) is like both the auxiliaries ( + ) and the modals $(+)$. When $B$ is unstressed, do ( $\left.{ }^{( }\right)$is like neither the auxiliaries ( + ) nor the modals $(+)$.

The ( + ) or ( - ) information in either form of the tabulation is the same. The first one has a systematic arrangement from S-a to $F$; the second one brings the behavior of $d o$ into better focus.

Uniqueness of behavior such as that of do in predicate expansion extends also to $b e$, have, will, and can. In spite of the similarity between be and have, there is the dissimilarity that be succeeds each other; have does not. Although there is similarity between will and can, there is also the dissimilarity that will occurs before have; can does not.

Each of the three auxiliaries and the two modals has its individual behavior in predicate expansion. Their complexity in occurring grammatical word strings, however, can be renresented by a simple grammatical formula $\mathrm{B}+-\mathbf{F}$.

In the two kinds of strings, the continuous and the discontinuous, three correlations occur. The first one is between the length of the continuous string and the participation of members in the string. The shorter the string is, the more inclusive the

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The frames, as presented, show that each small segment of leaming is reinforced by a review. After each review, the student is asked to proceed with the next frame if satisfactory results are achieved, or re-do the frames in question if the results are not satisfactory.

The geometric terms are presented so that the student will be able to identify all of the shapes that are used in the final dyadic activity. Two communication factors come into play at this point: (l) vocabulary expansion which, in tum, contributes to (2) the economy of words in that much can be said with one "technical"

has maximum precision and, minimum obscurity in string formation. $\mathbf{B}+\boldsymbol{+} \boldsymbol{F}$ for simple predicate expansion assumes embedded step by step reduction according to linguistic features and linguistic principles. As a grammatical formula, it has maximum concision and minimum obviousness.

Correlation 3


Numerous sets of opposites occur in simple predicate expansion. External relationships and internal relationships are one example. Continuous strings and discontinuous strings are another. Auxiliaries and modals; aux +V and modal $+\mathrm{V} ; \mathrm{B}+\mathrm{V}$ and $B+B ; B$ and $B ;-i n g$ and $-n ;-N$ and $-\boldsymbol{\varphi} ; a$ short continuous string with inclusive membership and long string with exclusive membership; proximity to the verb with complex discontinuous string formation in the following member and distance from the verb with simple formation in the following member; maximum precision with minimum obscurity and maximum concision and mininum obviousness are some of the other opposites. The list does not take into account some other opposites such as The
man is gone with be +n as the non-passive which can alternate with The man has gone with have +-n and The man is forgotten with be $+-n$ as the passive which cannot alternate with The man has forgotten with have +n ; The meat is cooking with be + -ing as the passive which can alternate with The meat is being cooked with be + be-ing $+-n$, and The man is testing with be + ing as the non-passive which does not alternate with The man is being tested with be + be-ing + $-n$. These are to mention only two. Among the three auxiliaries and the two modals, each is in opposition to the other four. There are only five words in the English language examined as a means in simple predicate expansion in affirmative statements alone. The significant fact is that grammatical word strings observe precise individual vocabulary participation in string formation and operate also within concise grammatical formulas. The dichotomy between precise obviousness and concise obscurity is there, and so is the supplementation of the opposites. Whether it is grammatical word strings or grammatical formulas or the relationship between the two, the individual can choose the one which interests him. Language itself operates with the supplementation of opposites. In this supplementation of opposites, simple predicate expansion in affirmative statements is no exception.


[^0]:    1. This is the last of four installments. 1 am grateful to Robert $A$. Peters and Elizabeth Bowman, editor and associate editor of Journal of English Linguistics, Western Washington State College, and Janet Callender of the University of Hawaii for their detailed and constructive criticisms.
    2. The terms subject and predicate are used for the purpose of explanatory convenience. No offense to or defense of Chomsky's deep grammar or Filimore's deep grammar is intended here.
