Part I. Theory

1. The Translatory Situation

A situation which can be considered to consist of, or 'be partitioned into the components of',*

(1) one object moving or located with respect to another object

will be termed a *translatory situation* and symbolized as 's_T'.

The relations which the components of the situation thus partitioned bear to the whole situation will be termed and symbolized as in (2):

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*A more rigorous treatment of the present terms and concepts is given at the beginning of section 5.

(2)   the object which is considered as moving or located with respect

to another object is (functions as)

the *FIGURE*, or 'F', of the translatory situation;

the object with respect to which a first object is considered as

moving or located is (functions as)

the *GROUND*, or 'G', of the translatory situation;

the respect with which one object is considered as moving or

located to another object is (functions as)

the *DIRECTIONAL*, or 'D', of the translatory situation;

the moving or located state which one object is considered to be

in with respect to another object is (functions as)

the *MOTIVE*, or 'M', of the translatory situation.

In the same way that 'subject' is understood as a relational (not
absolute) term naming the grammatical function performed in a sentence
by a particular constituent of the sentence, so each of the terms in
(2), e.g., 'FIGURE', is to be understood as a relational term naming
the semantic function performed in a translatory situation by a
particular component of the situation. Additionally in this paper,
however, the term 'FIGURE', etc., will be used as a short-hand
designation for 'the component which functions as the FIGURE (the
FIGURE-functioning component)', etc.

A situation which, as above, has been partitioned into components
(and is thereby rendered suitable, as seen next, for specification by an
underlying syntactic structure), will be termed a *semantic structure*;

in the present instance the translatory semantic structure may be
represented terminologically as in (3a) and symbolically as in (3b):

(3)

(a)   translatory situation:

FIGURE + MOTIVE + DIRECTIONAL + GROUND

(b) S_T:

F + M + D + G

It is now posited that a translatory situation is specified at
the underlying level of all languages by a particular syntactic
structure, to be termed the *translatory structure* and symbolized as
'S_T'. Each constituent of the translatory structure specifies a
particular component of the translatory situation and belongs to a
particular grammatical category, as indicated in (4):

(4)   the FIGURE-specifying constituent is a *nominal*, or 'N';
      the GROUND-specifying constituent is a *nominal*, or 'N';
      the DIRECTIONAL-specifying constituent is a *prepositional*, or 'P';
      the MOTIVE-specifying constituent is a *verb*, or 'V'.

We note that throughout this paper the grammatic-categorial terms and
symbols appearing in (4) are systematically used to label both simple
and complex constituents; thus, 'verb/V' is used equally for a simple
verb or a verb complex, 'prepositional/P' for a simple
preposition or a prepositional complex, and 'nominal/N' for a simple
noun or a noun phrase. In addition, 'prepositional/P' is intended to
designate a grammatical category neutral to distinctions of position or

boundedness, hence to label equally a nominal's 'preposition',
'postposition', 'prefix', or 'suffix'. The translatory structure can be
represented in its general form as in (5), where the semantic component
specified by each syntactic constituent (and the semantic situation
specified by the whole syntactic structure) is indicated in parentheses:

(5)

$$S_T \; (s_T)$$

N (F)   V (M)   P (D)   N (G)
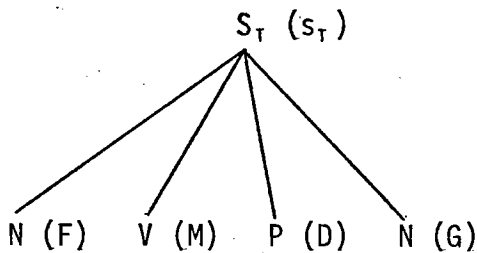
A translatory structure, of which (5) represents the general form,
becomes *particularized* when particular expressions are attached to its
constituent categorial nodes. It is assumed that, of these latter, the
V node must and can only dominate either of two particular verbs --
henceforth to be represented as MOVE and BE_L (a mnemonic for 'be-located') --
which specify the two motive states of the translatory situation, so
that the already partly particularized translatory structure can be
represented as in (6):

(6)

$$S_T \; (s_T)$$

N (F)   V (M)   P (D)   N (G)

$$\left\{ \begin{array}{c} BE_L \\ MOVE \end{array} \right\}$$
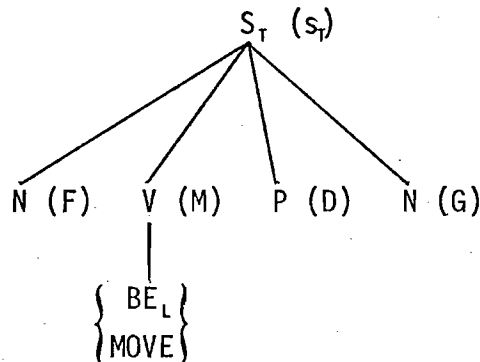
When fully particularized, a translatory structure becomes proper input to a derivation leading to a surface sentence. Before discussing certain typical particularizations and derivations of the S_T in English and Atsugewi, however, the following terms and concepts are introduced:

The term *vadic* (adapted from the Latin word for 'shallows') will be applied to a morpheme which (in a first approximation to be refined later) has an associated meaning, has associated syntactic characteristics, and appears at the surface -- hence has an associated phonologic shape. Such a morpheme first appears either at the underlying level, or is introduced at a mid-derivational level, e.g., by insertion onto an adjunction of other morphemes.

The term *bathic* (adapted from the Greek word for 'depths') will be applied to a morpheme which has an associated meaning, has associated syntactic characteristics, and appears only at underlying and middle levels, never at the surface -- hence has no associated phonologic shape. Such a morpheme disappears at a mid-derivational level, e.g., by participating in an adjunction onto which a vadic morpheme is inserted. The existence, meanings, and syntactic characteristics of bathic morphemes -- just as those of underlying structures -- are inferred from, and in turn are posited to account most systematically for, the meanings and syntactic characteristics of vadic morphemes and surface structures.

Although a particular morpheme can be designated by any arbitrary symbol, a vadic morpheme is most conveniently designated by reference to its associated phonologic shape (and additionally to its associated meaning where there are homophonous forms) and a bathic morpheme,

since it has no associated shape, by reference to its associated meaning. In this paper, accordingly, a vadic morpheme will be represented either by its phonologic shape or its normal spelling -- written in lower case letters -- with subscripts to distinguish homophonous forms, and a bathic morpheme will be represented by a (sometimes devised) English word -- written in small caps -- which is suggestive of its meaning.

The term *open* will be applied to any set of expressions of a particular grammatical category in a language where the membership of the set is indefinitely extendable by recursive grammatical processes. Thus, e.g., the set of vadic noun phrases in English is open because new noun phrases can be formed without limit by nominalization processes.

The term *closed* will be applied to any set of expressions of a particular grammatical category in a language where the membership of the set cannot be extended by recursive grammatical processes but, at most, only by new coinages, borrowings, and the like. Thus, e.g., the set of vadic simple nouns in English is closed.