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AN IVATAN SYNTAX

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN LINGUISTICS

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Ivatan is the language of some 13,000 inhabitants of the Batanes Islands, situated in the Luzon Strait north of Luzon in the Philippines, and separated from the Southern tip of Taiwan by the Bashi Channel. Ivatan is a member of the Philippine Branch of Malayo-Polynesian languages.

This dissertation is a syntactic description of the Central Dialect of Ivatan, using Tagmemic Theory as the descriptive model. Both Clause level constructions (basic and derived), and Phrase level constructions are described. Longacre's (1964) proposed operations on tagmemic formulae (Reading, Permutation and Exponence) are clarified and developed in relation to Ivatan.

A prominent feature of Ivatan is the presence of a number of verb stem classes, whose occurrence in a predicate, coupled with a change in transform potential, is diagnostic of syntagmemic change. Criteria for classifying verb stems in previous descriptions of Philippine languages is examined and found to be mostly inadequate for Ivatan. The classifying criteria decided upon for Ivatan verb stems are (1) potential clause expansion of nuclear grammatical slots, and (2) potential clause transformations.

There are twelve sets of non-causative verbal constructions in Ivatan. Each set is characterized by a distinct

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class of the verbs manifesting the Predicate tagmeme and by contrasting features of other nuclear tagmemes. For each set of constructions the discussion provides (1) a description of the characteristics of each set and criteria for establishing it as a separate series of syntagmemes; (2) the interpretation of the grammatical function of the constituent tagmemes in terms of situational role; (3) a representative list of stems of the verb class manifested in the Predicate; (4) a formal statement as a syntagmemic paradigm; and (5) a citation paradigm with literal and free translations.

A broad categorization of verb stem classes into a transitive-intransitive dichotomy, established with non-causative verbal constructions is highly relevant to causative verbal constructions. Contrasting paradigms of causative syntagmemes based on the transitive-intransitive dichotomy are presented.

Clauses with Predicates manifested by adjectives and by nouns are also described.

Phrase description includes formulae and examples of Possessor, Appositional, Coordinate and Attributive phrases, the latter consisting of demonstrative, qualifying, measurement, count, partitive, teen-count, characteristic and similitude subtypes.
The final chapter presents rules for deriving Stative, Emphasis, Emphatic Negative, Nominalized, Relative, Identificational and Yes-No Interrogative clauses from the basic constructions presented in the first chapter.
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CHAPTER I
INTRODUCTION

1.1 General Background. Ivatan is the language of some 13,000 inhabitants of the Batanes Islands situated in the Luzon Strait north of Luzon in the Philippines, and separated from the southern tip of Taiwan by the Bashi Channel. It is also spoken by several thousand people in Mindanao, originally inhabitants of Batanes but relocated by the government in recent years, for economic reasons, to the communities of Malinao in western Bukidnon and Wao in Lanao del Sur.

Ivatan belongs to the same subgroup of Malayo-Polynesian languages as the other languages of the Philippines. However, a close genetic tie has also been postulated by

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1 The research for this dissertation was carried out in the Philippines from February to July, 1965, under a field study grant from The Center for Technical and Cultural Interchange Between East and West of the University of Hawaii. Marcial Bongay (aged 20) of Malinao, Bukidnon (formerly of Basco, Batanes), was the major informant during the research period. I wish to thank Mr. Morris Cottle of the Summer Institute of Linguistics, Philippines, for free access to his Ivatan data, collected during an extended period in Batanes, and for reference to several typewritten manuscripts on various aspects of the language. The analysis presented here, however, is my own. Use was also made of a concordance of 50,000 words of Ivatan text collected by Mr. Cottle. The concordance was made on the IBM 1410 computer at the University of Oklahoma by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, and sponsored by Grant 95-270 of the National Science Foundation.
Scheerer\(^2\) and Asai\(^3\) between Ivatan and Yami, the language of Botel Tobago Island off the South-Eastern Coast of Taiwan. Thomas and Healey's lexicostatistical study\(^4\) places Ivatan coordinate with Illongot, Baler Dumagat, and the Philippine Stock from which developed the majority of the other Philippine languages (excepting Tagabili, Bilaan and other possible members of Thomas and Healey's Southern Mindanao Family which split off at an earlier date).

Dyen's study\(^5\) makes Ivatan an independent member (i.e., not part of a larger grouping) in the Philippine Hesion, coordinate with such languages as Maranao, Casiguran Dumagat, Baler Dumagat, Yakan, Tiruray, and Dusun and with language subgroups called by Dyen, Sulic Hesion, Cordilleran Hesion,

\(^2\)Otto Scheerer, "The Batan Dialect as a Member of the Philippine Group of Languages," Bureau of Science, Division of Ethnology Publications, V, pt. 1. (Manila, 1903).

\(^3\)Erin Asai, A Study of the Yami Language, an Indonesian Language Spoken on Botel Tobago Island (Leiden, 1936), p. 93. "... It is in every respect so much akin to the Batanese language, that we would opine the Yami language is nothing but a dialect of the Batanese language...[Yami] is most closely related to the Basco dialect of the Batanese language."


Murutic Subfamily and Bilic Subfamily.

Blake's bibliographies list a number of general works, some published, some in manuscript, which deal with Ivatan. Dominican priests prepared substantial materials on Ivatan and used the language in a published catechism and other religious works. Most significant of the linguistic materials was a Spanish-Ivatan dictionary prepared by various Dominican priests. An article by Dempwolff gives evidence for considering Ivatan as a reflex of Proto-Austronesian. He concludes that Ivatan is a test language for this proto-phoneme.

The only recent linguistic publication to appear on Ivatan has been Morris and Shirley Cottle's phonological study. This study, besides giving a phonemic description of Southern Ivatan, gives phonological evidence to support the postulation of Scheerer (and Asai) that there are three Ivatan dialects, Northern Ivatan (spoken on Itbayat Island),


7Diccionario Español-Ibatan por Varios PP. Dominicos de las Islas Batanes (Manila, 1914).


9Morris and Shirley Cottle, "The Significant Sounds of Ivatan," Studies in Philippine Linguistics, by Members of the
Central Ivatan (spoken in Basco, the main town on Batan Island), and Southern Ivatan (spoken elsewhere on Batan Island and on Sabtang Island).

1.2 Theoretical Background. This dissertation, based on the Central Dialect, is a description of the syntax of Ivatan, using tagmemic theory as the descriptive model.

1.2.1 Tagmemes and Syntagmemes. Basic to tagmemic theory is the concept that language consists of three semi-autonomous, interacting hierarchies of emically structured units. These hierarchies are the phonological, lexical, and grammatical systems of language. Within the grammatical hierarchy (with which this dissertation is primarily concerned) are a series of levels comprised of one or more significantly distinct structures—SYNTAGMEMES. (Longacre, 1960, used "hyper-tagmeme"


The phonemes of Central Ivatan are as follows:
Vowels:  a, i, o, e [ã].
Consonants:  p, b, t, d, c [tʃ], j [dʒ], k, g, q [ʁ], m, n, ŋ [ŋ], ng [ŋ], h, l, r, s, v, w, y, ' (stress).
Acute accent is only used to indicate stress on other than ultimate syllables. Words without an acute accent have ultimate syllable stress. The Cottles considered length to be phonemic. The orthography used in this dissertation however is based on the assumption that phonetic length is indicative of either (1) geminate consonants or vowels, or (2) a feature of stress in certain environments. Length is not considered to be a phoneme.

10 This section and sections 1.2.3 and 6.0 below are based on material originally written for and forming part of my "A Formal Analysis of the Clause Structure of Central Bontoc" (unpublished M.A. thesis, University of Hawaii, 1965), pp. 3-4, 8-10.
for syntagmeme.)¹¹ The units of which syntagmemes are composed, are TAGMEMES. A tagmeme is the correlation of a functional slot or point of structure and the class of items which manifests or expounds¹² it. Structure is not conceived of as consisting necessarily of interlocking layers of binary constituents but of constituents in series, as beads on a string, hence the term "string constituent analysis" as opposed to "immediate constituent analysis." Each significantly different structure reflects a learned language pattern and can be represented by a tagmemic formula. Each symbol in the formulae represents an emic unit. Each unit is well defined only as its identifying-contrastive features are delineated, its possible variations or manifestations are described, and its distribution in class, sequence, and system are known. Each formula is in effect a distributional matrix forming a frame of reference for each of the included tagmemic units.

Two strings (syntagmemes) on the same level are considered distinct according to Longacre if "(1) they exhibit at least two structural differences relative to each other, and (2) if these differences are relevant either to both obligatory and optional tagmemes in the two strings, or to more than one obligatory tagmeme. Among the structural

¹²The terms "manifest" and "expound" are used synonymously throughout the dissertation.
differences serving to establish hypertagmemic distinctions is transform potential."  

1.2.2 Readings, Permutations and Exponents. Longacre has suggested in his Grammar Discovery Procedures that three operations are needed to formalize the generative development within tagmemic theory. These operations are first a READING operation whereby a particular formula is obtained. It is performed as follows:

(1) All symbols following plus signs are retained. (2) A given + sign is read as either plus or minus; the symbol following it is retained only if it has been read as plus. (3) Superscript ² permits us to read a symbol either once or twice in a given reading. Superscript n permits us to read a symbol as many times as desired in a given reading. (4) The signs and superscripts are removed; the reading of a formula contains only symbols for tagmemes.

The second is a PERMUTATION operation, performed upon a particular reading, by which the symbols may be changed to an order different from that of the original formula.

The third is an EXPONENCE operation whereby the symbols of the formula are replaced first by the label of one of their manifestations and second by the formula which the label represents. The three operations are repeated on each of the resulting strings until only functional morphemes and

13 Longacre, op. cit., p. 75.


15 Ibid., p. 25-26. In this grammar the plus symbol does not indicate obligatory occurrence of the following symbols,
labels for major stem classes remain.

Longacre does not mention the criteria by which he decided upon the ordering of his proposed operations. Where the relative order of certain symbols in the formula is free, it seems inconsequential whether permutation or exponence follows the reading operation, apart from the fact that permutation of single symbols is likely to be less unwieldy than permutations of compound symbols or of strings of symbols.

However, where certain symbol orderings are not free but are associated with particular exponents, and other orders obligatorily occur when the same symbols are differently expounded, it would seem intuitive to consider the permutation as depending upon the exponential choice rather than the exponent as depending upon the choice of permutation. In Ivatan the choice of pronoun or noun phrase exponents of Subject and Topic determines the relative position of these two tagmemes. Note the following examples where in (1) the Topic, being a pronoun, precedes a Subject manifested by a noun phrase; and in (2) both Topic and Subject are pronouns and the normal order of Subject preceding Topic occurs.

(1) qisavat qako no trak
    (Pred)home (Topic)me (Subject)truck

    "The truck takes me home."

but is a concatenation sign. Optional or obligatory status of symbols is indicated by the presence or absence of parentheses.
Standard tagmemic procedure allows obligatory difference in tagmeme ordering as a differential criterion for establishing syntagmemic contrast if the difference in order makes a difference in meaning of the constructions.\(^{16}\) Difference of exponential class is used as a determiner for tagmemic contrast.\(^{17}\)

If tagmemic contrast were established between Ivatan Subject when manifested by a noun phrase and Subject when manifested by a pronoun and a contrast between Topic tagmemes when manifested by a noun phrase or by a pronoun, the difference in constituent tagmemes with the obligatory difference in ordering would create at least twice as many clause types. The addition of these clause types seems undesirable, especially since the difference in order of the constituent tagmemes, although obligatory, cannot be said to make a difference in meaning, and therefore ceases to be useful as a distinguishing criterion between syntagmemes.

The apparent difficulty of manipulating strings of symbols by permutation can be overcome by allowing the permutation operation to take place between the two stages of the exponence operation. The first stage of exponence of

\(^{16}\)Benjamin Elson and Velma Pickett, An Introduction to Morphology and Syntax (Santa Ana, 1962), 133.

\(^{17}\)Ibid., p. 133.
a clause level string is a clause level operation. It merely makes explicit the constituent tagmemes which until then have been referred to by cover symbols (actually the tagmemic function symbols). Permutation following this operation would still be a clause level procedure. The second stage of exponentence of a clause level string would then be a phrase level operation, since it no longer has reference to clause level functions but provides phrase level syntagmemes upon which further reading, exponentence and permutation operations can take place.

The order of operations to be followed, then, in this grammar are (1) reading; (2) exponentence stage 1, i.e., the replacing of the symbols of the reading by labels of the manifesting formulae; (3) permutation of symbols of the reading with reference to their manifestations provided by the preceding operation; (4) exponentence stage 2, the substitution of formulae for the labels provided by exponentence stage 1.

1.2.3 Multiple Function. Just as languages frequently show instances of simultaneous morphemes (portmanteau morphemes), there are likewise frequent instances when it seems advisable to consider the exponents at a single point in the pattern as simultaneously expounding more than one tagmeme. These are instances of MULTIPLE FUNCTION, and result in portmanteau tagmemes. Pike describes the phenomenon as follows:
(b) A single morpheme may . . . simultaneously serve as manifesting a part of two overlapping grammatical constructions. This morpheme is in double function between the two tagmemes or tagmeme sequences . . . Such a morpheme in double tagmemic function is further evidence that there is not a one-to-one correlation between units of the lexical and grammatical hierarchies.

(c) A related phenomenon occurs when a single morpheme fills the slot of two fused tagmemes. This is the circumstance in which a morph with two semantic components is nevertheless analyzed as a single morpheme, but the semantic components in part reflect semantic elements of the two tagmemes fused in that one morpheme. An illustration is the -o of digo, with components which are both personal and tense or mode . . .

The concept of portmanteau tagmemes has been used by Pickett for relative or interrogative tagmemes simultaneously occurring with subject, object, time, location and manner tagmemes. 19

In his description of some Bilaan clause types Pike has drawn attention to the character of multiple function tagmemes in a Philippine language. 20 He notes that one of the substantive components of a clause "serves as the FOCUS COMPLEMENT of this FOCUS ACTIVITY-RELATION of the predicate and is often formally marked as such." 21

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21 Ibid., pp. 222-223.
or goal tagmemes may occur simultaneously with the focus complement in Bilaan with the possibility of a third tagmeme of emphasis co-occurring with the other two in an instance of triple function.

The nature of the focus-activity relation has been widely recognized by those who study Philippine languages and has sometimes been labelled "voice". A. Healey\textsuperscript{22} and P. Healey\textsuperscript{23} labelled the relation "focus", to "emphasize the non-English nature of Agta grammar."\textsuperscript{24} The substantive manifesting the voice relation (Pike's "focus complement") was termed "subject" prior to 1958.\textsuperscript{25} McKaughan introduced the term "topic"\textsuperscript{26} for what had previously been labelled "subject" and in subsequent publications members of the

\textsuperscript{22}Alan Healey, "Notes on Yogad," (unpublished manuscript in files of the Summer Institute of Linguistics, Philippines, 1958).

\textsuperscript{23}Phyllis M. Healey, An Agta Grammar (Manila, 1960).

\textsuperscript{24}Ibid., p. 103, fn. 11.


\textsuperscript{26}Frank R. Blake, A Grammar of the Tagalog Language, the Chief Idiom of the Philippines (American Oriental Series, Vol. 1; New Haven, 1925).


Summer Institute of Linguistics have quite closely followed his terminology. Other linguists still retain subject with its traditional (for Philippine linguistics) usage.

Multiple function as described by Pike in relation to Bilaan, is also a prominent feature of Ivatan clause structure. Instances of portmanteau tagmemes are symbolized in this study by a bar (\( I \)) between the symbols marking the separate functions, e.g. S/T indicates a portmanteau tagmeme having the functions of subject and topic.

1.2.4 Verb Stem Classification. In recent years attention has been drawn to the problem of verb stem classification in Philippine languages, in an attempt to construct grammars powerful enough to generate well formed strings. Verb stems have been classified in most traditional grammars of Philippine languages by their potential occurrence with voice (and sometimes aspect) affixes. In the morphology section

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29 This study follows McKaughan rather than Pike in using the term "topic". Even though "focus complement" may
of his Tagalog grammar, after describing and giving examples of the use of each of the Tagalog affixes and affix combinations, Bloomfield has listed examples of stems with which the affix under study may occur.\textsuperscript{30} Again, Alejandro has noted that many of the roots of \textit{um}- verbs in Tagalog can also serve as roots for other kinds of verbs.\textsuperscript{31} Alejandro also suggests the pertinence of a transitive-intransitive dichotomy. "With reference to function," he writes, "Tagalog verbs, like the English, may be classified into two general kinds: transitive (palipát) and intransitive (dí-palipát)."\textsuperscript{32}

He further concludes that some verb stems occur as either transitive or intransitive, giving as examples:

\begin{itemize}
\item Transitive: \texttt{Ako'y gumágawa ng silya}
  \item Intransitive: \texttt{Ako'y gumágawa}
\end{itemize}

Transitive: \texttt{I am making (a) chair}
Intransitive: \texttt{I am working (i.e., I am not idle.)}

Vanoverberg has classified Iloko verbs first by voice affix (\texttt{ag, um, maka}, etc.) and then semantically. For example, "\texttt{ag-} with names of instruments forms a verb meaning: to use a certain instrument; with names of plays and

more adequately express the functional meaning "topic" does so quite satisfactorily, is less cumbersome and is more firmly established in the literature.

\textsuperscript{30}Bloomfield, \textit{Tagalog Text}, 223 et seq.

\textsuperscript{31}Rufino Alejandro, \textit{A Handbook of Tagalog Grammar} (Manila, c1947), 26-37.

\textsuperscript{32}Ibid., p. 71.
games, it forms a verb meaning: to play a certain game."

Vanoverberg likewise speaks of transitive and intransitive verbs. The prefix ag- is "really the one almost universal prefix for intransitive verbs in the Iloko adjectival voice." He lists also the Iloko prefix mang- as a "transitive prefix". Blake, in an early article, dealt with derived verb stem classes in Tagalog.

More recently, however, attempts have been made to refine the criteria used in verb stem classification. Jeanne Miller has classified Mamanwa verb stems "on the basis of their occurrence or non-occurrence with the above [voice marking] affixes." Her criteria differ from Alejandro's and Vanoverbergh's in that she has not set up as many classes as there are voice marking affixes, but instead has tested each stem for voice potential. She was then able to describe the eight Mamanwa verb stem classes in the following manner:

"Class One verb stems = verbs that can be affixed for Object, Referent and Accessory Focuses; Class Two verb

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33 Morice Vanoverberg, C.I.C.M., Iloko Grammar (Baguio City, Philippines, [1955]), 131 et seq.
34 Ibid., p. 131.
stems = verbs that cannot be affixed for Object Focus. . . ."38

Barnard has attempted a classification of Dibabawon verb stems on the basis of certain obligatory situational (participant or dramatis personae) slots.39 These slots, though not necessarily present in any given clause, are considered to be obligatory to a given situation (discourse plus extra-linguistic context). The situational slots are correlatable with grammatical slots in the manner indicated by Pike (1964) for tracing the "flow of situational roles through discourse".40 Barnard writes as follows: "The constituency of a verb stem class is the set of primary situational slots associated with that stem class. The stem class of the verb is defined by the primary situational slots that occur in its constituency."41 She lists seven classes, each with a distinctive constituency. Class One, for example, requires an obligatory actor; Class Two requires obligatory actor and site, and so on. Terms like actor and site define situational roles and are not to be confused with grammatical roles specified by such terms as Subject and Object.

In commenting on Miller's treatment of Mamanwa verb stems, Barnard says, "Jeanne Miller separates verb stems

38 Ibid., p. 90.
41 Barnard, op. cit., p. 6.
into classes on the basis of co-occurrence of stems with sets of focus affixes. In the terms of this paper, I believe that this would be equivalent to separating the classes on the basis of what I have defined as nuclear grammatical slots."\(^{42}\)

Nevertheless, an examination of Miller's paper does not indicate that she recognized the implications of her classification as involving any nuclear grammatical slots other than those occurring as Topic of the clause. She does not discuss for example the fact that verbs not inflectable for Object focus probably do not occur with a non-focus Object in a clause string in which the verb is inflected for Subject focus. On the other hand, this implication seems to have been noticed by Abrams in his classification of Bilaan word bases.\(^{43}\)

Abrams divides Bilaan "verb word bases" into three classes, using as his primary criterion the clause focus when the base occurs unaffixed in the Predicate. The stems are said to have either an actor, goal or instrument pre-focus.\(^{44}\) He also states the restrictions on grammatical

\(^{42}\) Ibid., p. 8. Barnard defines nuclear grammatical slots as "those clause level slots correlated with focus inflection" (p. 3).


\(^{44}\) Ibid., p. 396.
slots not only when the base is unaffixed but also when it is affixed. "Goal pre-focus bases," he writes, "occur uninflected with non-topic subject, topic object and optional non-topic indirect object. Inflected with -n- non-actor focus marker, they occur with non-topic subject, non-topic object, and topic indirect object. Inflected with -m- they occur with topic subject and possibly other obligatory non-topic elements." This statement in effect uses potential clause expansion with nuclear grammatical slots and potential clause transformation as supporting criteria for the pre-focus condition of unaffixed bases.

Barnard has noted with some persuasion that situational slots determine the potential grammatical slots, and that the correspondence between situational slots and grammatical slots is variable. Nevertheless Abrams' criteria of potential clause expansion of nuclear grammatical slots and potential clause transformation seem the better criteria for the classification of verb stems in Ivatan. Barnard classifies Dibabawon stems from the point of view of the speaker, who, knowing the participants in the situation, is able to produce a series of grammatical forms which convey the situation to a hearer. But the hearer must, from the grammatical forms, determine the participant relations.

\footnote{Ibid., p. 400.}
It is from the standpoint of the hearer, however, that Barnard is able to decide in any given instance that a concomitant is required for the constituency of a verb stem class rather than a goal. Both are often translatable into English as direct objects, but where the participant is expressed by an Associate grammatical slot it is interpreted as concomitant, whereas where the participant is expressed by an Object grammatical slot it is interpreted as goal.

It is true that the correspondence between situational slot and grammatical slot is variable, but not in any haphazard way. Grammatical signals (for example the causative affix) indicate a shift in correlation between situational and grammatical roles. In Ivatan, difference in situational slot constituency requires an obligatory difference not only in clause expansion, but in potential transformation from one focus type to another.

1.2.5 Transitivity. As noted in 1.2.4, the categories of transitive and intransitive have been mentioned by Alejandro, Vanoverbergh and other linguists. The question of the

46 Barnard, op. cit., p. 4.

structural significance of these categories in Philippine languages, however, has not been delineated in the published materials examined to date. Current research results indicate that a transitive-intransitive dichotomy is relevant to an adequate description of Ivatan.

However, in Ivatan, transitivity is not a feature of the verb stem per se, since a large number of such stems participate in what appear to be both transitive and intransitive constructions: e.g., godi (4,6)48 "return home, take home," -sdep (1,6) "enter, take in," golib (1,6) "hide (oneself), hide (something)". Neither is transitivity a feature of the construction, since constructions with an apparently transitive verb need not have an overt goal. Colloquial speech frequently omits the tagmeme indicating the goal of the verbal activity even in constructions that seem to be transitive because verbal affixation predicts the possible occurrence of a Topic tagmeme indicating goal.

Transitivity is instead a feature of the verb stem class. When any member of a transitive class occurs in the Predicate of any of the constructions dependent on that class, a goal is implicit in the statement whether a goal is stated or not. Likewise the same stems, when representing intransitive classes in constructions dependent on those

48 Numerals in parentheses following stems indicate their verb stem class membership.
classes, implicitly deny the presence of a goal.

In the following description of the verbal constructions and their respective verb stem classes, it will be seen that classes 1, 2, 3, 4, 5 and 10 are transitive, and classes 6, 7, 8, 9, 11 and 12 are intransitive.

1.3 Abbreviations. The more frequent abbreviations are listed here for convenience. Other abbreviations are noted as they occur in the discussion.

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<tr>
<th>Abbreviation</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>A</td>
<td>Associative</td>
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<tr>
<td>AcS</td>
<td>Action Status</td>
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<td>Noun Phrase</td>
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<td>NC</td>
<td>Nominal</td>
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Legend:
- a: actor
- ad: additional-goal
- af: associative focus
- af': associative focus prime
- bf: beneficiary focus
- c: causative
- cn: common
- d: descriptive
- dem: demonstrative
- e: existential
- em: embedded
- ex: exclamatory
- g: goal
- lo: location
- m: manner
- meas: measure
- n: noun
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<tr>
<td>R</td>
<td>Referent</td>
<td>rlof</td>
</tr>
<tr>
<td>S</td>
<td>Subject</td>
<td>sf</td>
</tr>
<tr>
<td>T</td>
<td>Topic</td>
<td>te</td>
</tr>
<tr>
<td>Te</td>
<td>Temporal</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Verb Phrase</td>
<td></td>
</tr>
<tr>
<td>VC</td>
<td>Verbal Construction</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER II

VERBAL CONSTRUCTIONS

2.0 This chapter gives a description of all syntagmemes which have verbal forms manifesting their Predicate tagmemes. Such constructions are either causative or non-causative.

Each syntagmemic statement describing these constructions is kernel; that is, the constituent tagmemes are nuclear. All other tagmemes on this level are considered peripheral and are not included since they are (1) optional and (2) not diagnostic of the clause type. Note that these tagmemes in Philippine languages do not transform to Topic. Other optional tagmemes which do transform to Topic and are therefore diagnostic of syntagmemes are considered nuclear. All obligatory tagmemes are also considered nuclear.¹ Peripheral tagmemes in Ivatan clauses are Action Status (AcS), Emphasis (Em), Negative (Neg), Location (L), Temporal (Te) and Manner (M). Location and Temporal may each occur more than once in a single clause. These tagmemes have superscript two in the following formal statement to indicate their possible multiple occurrence. Further investigation may indicate that sequences of more than two Locative or Temporal tagmemes may be grammatical.

¹Elson and Pickett, Introduction, p. 63.
Verbal Clause Periphery.

\[(+AcS) (+Em) (+Qu) (+Neg) (+L^2) (+Te^2) (+M)\]

This formula may only be read (by a reading operation) when it is combined with a given nuclear syntagmeme. Co-occurrence restrictions exist which provide constraints upon the reading. However, all such co-occurrence restrictions have not been fully determined. It is possible, for example, that the exponents of Action Status depend on the verbal aspect, and perhaps also on the Temporal exponent (whether the action is completed or incompletely, past or present).

2.1 Non-Causative Verbal Constructions. There are twelve sets of non-causative verbal constructions in Ivatan. Each set is characterized by a distinct class of the verbs manifesting the Predicate tagmeme and by contrasting features of the other nuclear tagmemes. Sets of constructions are named by the class of the verb stem. A transformational relation exists between constructions in a particular set. There is no transformational relation, however, between any two constructions belonging to different sets. The discussion below includes (1) a description of the characteristics of each set and criteria for establishing it as a separate series of syntagmemes; (2) the interpretation of the grammatical function of the constituent tagmemes in terms of situational role; (3) a representative list of
stems of the verb class manifested in the Predicate; (4) a formal statement as a syntagmemic paradigm; and (5) a citation paradigm with literal and free translations.² Underlining in the free translation indicates the topic of the Ivatan clause. Other symbols used are:

- "rewrite as"
+ concatenation symbol
( ) optional occurrence of the included symbol
/ "in portmanteau function with"
// "in the following environment"
, "or"

} alternate choice of the included symbols.

2.1.1 Verb Stem 1 Constructions. Verb stems from Class 1 are required in constructions of this set. This is the largest of the verb stem classes in Ivatan; it occurs most frequently in the texts and has the largest set of dependent constructions.³

² The value of utilizing "controlled redundancy" in syntactic paradigms has been described and illustrated by K. L. Pike in "A Syntactic Paradigm", Language XXXIX (1963), 216-30.

³ The constructions are dependent in the sense that a verb stem class choice is required before any construction choice can be made.
Contrast between each of the seven constructions of the set is established by comparison of verbal affixation within the set and the status of the constituent tagmemes. In each construction Subject represents the actor of the action, Object and Object\(^1\) represent the goal.\(^4\) Associative represents the instrument or accessory to the action, that with which or by which the action is performed. Referent represents the location of the action, the place where the action is performed. Beneficiary is the one for whom the action takes place, the one who benefits from the activity.

The distinction semantically between 3 and 3', and 4 and 4' is not clear. Both sets have the same focus, Associative and Referent, respectively. However, it seems that 3' and 4' are required to be explicitly transitive—the goal of the action must be specified. This fact plus the difference in verbal affixation (qi- versus qipang-, and -an versus pang--an) establish syntagmemic contrast.

Representative Stems.

<table>
<thead>
<tr>
<th>gamoqmo</th>
<th>&quot;frighten&quot;</th>
<th>hogmek</th>
<th>&quot;smash&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>gahap</td>
<td>&quot;get&quot;</td>
<td>sadiw</td>
<td>&quot;buy&quot;</td>
</tr>
<tr>
<td>rarayaw</td>
<td>&quot;destroy&quot;</td>
<td>kepkek</td>
<td>&quot;embrace&quot;</td>
</tr>
</tbody>
</table>

\(^4\)Object can be manifested only by a common noun phrase; Object prime may be manifested by common or proper noun phrases, or by pronouns. See tagmeme exponents, Chapter IV.
-xbeng  "tweak"  penpen  "prevent"

takaw  "steal"  vangon  "raise"

Formal Paradigm

1. \( VCl_{sf} \rightarrow Pvl_{mang-} \) + \( T/S \) (+O) (+A) (+R)
2. \( VCl_{of} \rightarrow Pvl_{en} \) + \( S + T/O \) (+A) (+R)
3. \( VCl_{af} \rightarrow Pvl_{gipang-} \) + \( S \) (+O)T/A (+R)
3'. \( VCl_{af'} \rightarrow Pvl_{gipang-} \) + \( S + O'+T/A \) (+R)
4. \( VCl_{rf} \rightarrow Pvl_{pang-an} \) + \( S \) (+O) (+A)T/R
4'. \( VCl_{rf'} \rightarrow Pvl_{pang-an} \) + \( S + O' (+A) + T/R \)
5. \( VCl_{bf} \rightarrow Pvl_{gipang-} \) + \( S \) (+O) (+A) (+R) + T/B

Citation Paradigm

1. \( \underline{mangamogmo \ qo \ tao \ so \ motdeh \ no \ boday \ do \ vahay} \)
\( sf\)-frighten  T  man  O  child  A  snake  R  house
"The man is frightening a child with a snake in the house."

2. \( \underline{gamoqmohen \ no \ tao \ qo \ motdeh \ no \ boday \ do \ vahay} \)
\( frighten-of  S  man  T  child  A  snake  R  house \)
"The man is frightening a child with a snake in the house."

3. \( \underline{gipangamogmo \ no \ tao \ so \ motdeh \ qo \ boday \ do \ vahay} \)
\( af\)-frighten  S  man  O  child  T  snake  R  house \)
"The man is frightening a child with a snake in the house."

An optional non-Topic Beneficiary tagmeme in other than Beneficiary focus constructions has not been checked with an informant and is therefore not included in the formulae.
3'. qimogmo no tao so motdeh go boday do vahay
af'-frighten S man O' child T snake R house

"The man is frightening a child with a snake in the house."

4. pangamogmoan no tao so motdeh no boday go vahay
rr-frighten S man O child A snake T house

"The man is frightening a child with a snake in the house."

4'. qamogmoan no tao so motdeh no boday go vahay
frighten-rr' S man O' child A snake T house

"The man is frightening a child with a snake in the house."

5. qipangamogmo no tao so motdeh no boday do vahay
br-frighten S man O child A snake R house

go kayvana T friend-his

"The man is frightening the child with a snake in the house for his friend."

A number of derived stems also belong to Class 1, although they are restricted in that they may occur only with VCl of and its corresponding causative construction of VCcl described in section 2.2. Such stems include descriptive bases plus derivative affix ka-, having the meaning "to bring about the quality of the base." Such stems include kaanáro "lengthen" (ganáro "long"), and kayfiied "shorten" (gified "short"). For example:

kaanárochen no tao go hovid
of-lengthen S man T string

"The man is lengthening the string."
"The man is shortening the string."

Intransitive stems which become transitive with the derivative pa- prefix and belong to this same category of Class 1 stems are described in section 2.2.

2.1.2 Verb Stem Class 2 Constructions. The five constructions of Class 2 are characterized by neutralization of contrast between the Object and Referent tagmemes. Subject is the actor of the action and Associative is the instrument or accessory as with Class 1 constructions. However in this set either Object or Referent may specify the goal of the action; Referent is not location, although location may be expressed by a peripheral tagmeme. The goal of the action, whether marked by an Object or a Referent phrase in the Subject focus construction, becomes the Topic of the clause marked by -an (see 41 below.) There is no Object focus construction unambiguously distinguishable from the Referent focus construction.

Representative Stems.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tarip</td>
<td>&quot;peel&quot;</td>
<td>kodit</td>
<td>&quot;skin&quot;</td>
</tr>
<tr>
<td>vovo</td>
<td>&quot;act secretly&quot;</td>
<td>nasnas</td>
<td>&quot;scrape&quot;</td>
</tr>
<tr>
<td>tawag</td>
<td>&quot;call&quot;</td>
<td>dilig</td>
<td>&quot;water, irrigate&quot;</td>
</tr>
<tr>
<td>gakaak</td>
<td>&quot;peel corn&quot;</td>
<td>goyas</td>
<td>&quot;wash utensils&quot;</td>
</tr>
<tr>
<td>gosep</td>
<td>&quot;extinguish&quot;</td>
<td>takas</td>
<td>&quot;uncover&quot;</td>
</tr>
</tbody>
</table>
Formal Paradigm 2.

1. \( VC_2 \text{sf} \rightarrow PV_2 \text{mang-} + T/S (\pm O, R) (+A) \)

3. \( VC_2 \text{af} \rightarrow PV_2 \text{gipang-} + S (\pm O, R) + T/A \)

3'. \( VC_2 \text{af'} \rightarrow PV_2 \text{qi-} + S + O', R + T/A \)

4'. \( VC_2 \text{bf} \rightarrow PV_2 \text{gipang-} + S (\pm O, R) (\pm A) + T/B \)

Citation Paradigm 2.

1. \text{manarip} \quad \text{go} \quad \text{tao} \quad \text{[so]} \quad \text{wakay} \quad \text{no} \quad \text{gipangan}
   \text{sf-peel} \quad T \quad \text{man} \quad O,R \quad \text{potato} \quad A \quad \text{knife}

"The man is peeling sweet potato with a knife."

3. \text{gipanarip} \quad \text{no} \quad \text{tao} \quad \text{[so]} \quad \text{wakay} \quad \text{go} \quad \text{gipangan}
   \text{af-peel} \quad S \quad \text{man} \quad O,R \quad \text{potato} \quad T \quad \text{knife}

"The man is peeling sweet potato with a knife."

3'. \text{qitarip} \quad \text{no} \quad \text{tao} \quad \text{[so]} \quad \text{wakay} \quad \text{go} \quad \text{gipangan}
   \text{af'-peel} \quad S \quad \text{man} \quad O',R \quad \text{potato} \quad T \quad \text{knife}

"The man is peeling sweet potato with a knife."

4'. \text{taripan} \quad \text{no} \quad \text{tao} \quad \text{[so]} \quad \text{wakay} \quad \text{no} \quad \text{gipangan}
   \text{peel-o,rf} \quad S \quad \text{man} \quad T \quad \text{sweet potato} \quad A \quad \text{knife}

"The man is peeling sweet potato with a knife."

5. \text{gipanarip} \quad \text{no} \quad \text{tao} \quad \text{[so]} \quad \text{wakay} \quad \text{no} \quad \text{gipangan} \quad \text{go}
   \text{bf-peel} \quad S \quad \text{man} \quad O,R \quad \text{potato} \quad A \quad \text{knife} \quad T

\text{kayvana} \quad \text{friend-his}

"The man is peeling sweet potato with a knife for his friend."
2.1.3 Verb Stem Class 3 Constructions. Class 3 constructions are characterized by the obligatory absence of an Object. Referent, as in verb stem Class 2 constructions, indicates the goal of the action rather than the location. As with Class 2 there is no Object focus construction. Syntagmemic contrast between these constructions and their equivalent Class 2 constructions is established by obligatory versus optional absence of Object, and different verb stem class membership in the Predicates.

Representative Stems.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>paga</td>
<td>&quot;pay&quot;</td>
</tr>
<tr>
<td>galop</td>
<td>&quot;blow&quot;</td>
</tr>
<tr>
<td>qiwang</td>
<td>&quot;open&quot;</td>
</tr>
<tr>
<td>qitan</td>
<td>&quot;rope&quot;</td>
</tr>
<tr>
<td>tavon</td>
<td>&quot;cover with earth&quot;</td>
</tr>
<tr>
<td>taqlob</td>
<td>&quot;cover&quot;</td>
</tr>
<tr>
<td>bonbon</td>
<td>&quot;cover&quot;</td>
</tr>
<tr>
<td>tapal</td>
<td>&quot;patch&quot;</td>
</tr>
<tr>
<td>poon</td>
<td>&quot;fill with earth&quot;</td>
</tr>
<tr>
<td>gakaak</td>
<td>&quot;whisper&quot;</td>
</tr>
</tbody>
</table>

Formal Paradigm 3.

1. $ VC_3^{sf} \rightarrow PV_3^{mang-} + T/S (+A) (+R) $
2. $ VC_3^{af} \rightarrow PV_3^{qipang-} + S + T/A (+R) $
3. $ VC_3^{af} \rightarrow PV_3^{qi-} + S + T/A +R $
4. $ VC_3^{rf} \rightarrow PV_3^{an} + S (+A) +T/R $
5. $ VC_3^{bf} \rightarrow PV_3^{qipang-} + S (+A) (+R) + T/B $

Citation Paradigm 3.

1.  
manglop go tao do gapoy no tagovi
    sf-blow T man R fire A bamboo tube

"The man is blowing the fire with a bamboo tube."
3. qipalop no tao do gapoy go tagovi
   af-blow S man R fire T bamboo tube

   "The man is blowing the fire with a bamboo tube."

3'. qialop no tao do gapoy go tagovi
   af'-blow S man R' fire T bamboo tube

   "The man is blowing the fire with a bamboo tube."

4. galopan no tao go gapoy no tagovi
   blow-rf S man T fire A bamboo tube

   "The man is blowing the fire with a bamboo tube."

5. qipanglop no tao do gapoy go tagovi
   br-blow S man R fire A bamboo T friend-tube

   "The man is blowing the fire with a bamboo tube for his friend."

2.1.4 Verb Stem Class 4 Constructions. The distinctive characteristic of this set of constructions is the neutralization of contrast between the Object and Associative tagmemes. Either Object or Associative indicates the goal of the action. There is no Object focus construction; goal becomes focused in 3' below with an qi- prefix with the verb.

   In contrast to verb stem Class 2 constructions, which do not allow location to be focussed when Referent and Object contrasts are neutralized, this set of constructions does allow an accessory or instrument to be focussed even though Object and Associative contrast is neutralized. The qipang- affixation on the verb in construction 3 below marks this construction. This Associative tagmeme, marking
accessory or instrument, is obligatorily absent in other constructions of the set.

Representative Stems.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>laveng</td>
<td>&quot;bury&quot;</td>
<td>tayara</td>
<td>&quot;take up&quot;</td>
</tr>
<tr>
<td>gangay</td>
<td>&quot;take&quot;</td>
<td>hebet</td>
<td>&quot;take out&quot;</td>
</tr>
<tr>
<td>yovon</td>
<td>&quot;inter&quot;</td>
<td>savat</td>
<td>&quot;take home&quot;</td>
</tr>
<tr>
<td>soon</td>
<td>&quot;carry on head&quot;</td>
<td>gonoŋ</td>
<td>&quot;follow with&quot;</td>
</tr>
<tr>
<td>hatid</td>
<td>&quot;bring, take&quot;</td>
<td>gosok</td>
<td>&quot;take down&quot;</td>
</tr>
</tbody>
</table>

Formal Paradigm 4.

1. $\text{VC}_4 \rightarrow \text{PV}_4 \text{mang-} + T/S (+ O,A) (+R)$
2. $\text{VC}_4 \rightarrow \text{PV}_4 \text{qipang-} + S (+ O,A) (+R) + T/A$
3. $\text{VC}_4 \rightarrow \text{PV}_4 \text{qo-} + S + T/O,A (+R)$
4. $\text{VC}_4 \rightarrow \text{PV}_4 \text{pang-} + S (+ O,A) + T/R$
5. $\text{VC}_4 \rightarrow \text{PV}_4 \text{qipang-} + S (+O,A) (+R) + T/B$

Citation Paradigm 4.

1. manlaveng go tao $\{\text{so} \} \text{ tamek do takey}$
   sf-bury T man O,A weeds R field
   "The man is burying the weeds in the field."

2. qipanlaveng no tao $\{\text{so} \} \text{ tamek do takey go pala}$
   af-bury S man O,A weeds R field T spade
   "The man is burying weeds in the field with a spade."

3. qilaveng no tao go tamek do takey.
   o,af-bury S man T weeds R field
   "The man is burying the weeds in the field."
4. \[ \text{panlavngan} \text{ no} \ \text{tao} \left\{ \text{SO} \right\} \ \text{tamek} \ \text{go} \ \text{takey} \ \text{rf-bury} \ \text{S} \ \text{man} \ \text{O, A} \ \text{weeds} \ \text{T} \ \text{field} \]

"The man is burying the weeds in the field."

4'. \[ \text{lavngan} \ \text{no} \ \text{tao} \left\{ \text{SO} \right\} \ \text{tamek} \ \text{go} \ \text{takey.} \ \text{bury-rf'} \ \text{S} \ \text{man} \ \text{O, A} \ \text{weeds} \ \text{T} \ \text{field} \]

"The man is burying the weeds in the field."

5. \[ \text{qipanlaveng} \ \text{no} \ \text{tao} \left\{ \text{SO} \right\} \ \text{tamek} \ \text{do} \ \text{takey} \ \text{go} \ \text{kayvana} \ \text{bf-bury} \ \text{S} \ \text{man} \ \text{O, A} \ \text{weeds} \ \text{R} \ \text{field} \ \text{T} \ \text{friend-his} \]

"The man is burying weeds in the field for his friend."

2.1.5 Verb Stem Class 5 Constructions. In the preceding four sets, the goal of an action could be expressed by either Object, Associative or Referent tagmemes (depending on the verb class); however, with this set of constructions, not only is the Object tagmeme obligatorily absent (as in Class 3), but the goal of the action is carried neither by the Associative nor the Referent tagmemes, which have situational roles precisely as described for Class 1. Yet this is a transitive class, the goal of the action being expressed in the verb stem. The verb class is formed of items which also freely occur as nouns. They are each derived with a reduplicative prefix, usually of the shape consonant-vowel, which supplies the verbal concept common to all members of the class—"to gather". With some stems, e.g., \text{manok} "chicken", \text{baka} "cow", the derivation means "to steal".
Representative Stems.

- vavalit: "gather rattan fruit"
- gangaamong: "fish"
- gangngayo: "collect wood"
- babaka: "rustle cattle"
- mamanok: "steal chickens"
- goonot: "gather shell fish"
- wawakay: "collect sweet potato"

Formal Paradigm 5.

1. $V_{C5}^{sf} \rightarrow P_{V5}^{mang-} + T/S (+A) (+R)$
2. $V_{C5}^{af} \rightarrow P_{V5}^{gipang-} + S + T/A (+R)$
3. $V_{C5}^{rf} \rightarrow P_{V5}^{pang-an} + S (+A) + T/R$

Citation Paradigm 5.

1. $mangngaamong \ qo \ tao \ no \ pana \ na \ do \ taaw$
   $sf$-fish $T$ man $A$ speargun $his$ $R$ sea
   "The man is fishing with his spear gun in the sea."

3. $gipangngaamong \ no \ tao \ go \ pana \ na \ do \ taaw$
   $af$-fish $S$ man $T$ speargun $his$ $R$ sea
   "The man is fishing with his spear gun in the sea."

4. $pangngaamongan \ no \ tao \ no \ pana \ na \ go \ taaw$
   $rf$-fish $S$ man $A$ speargun $his$ $T$ sea
   "The man is fishing with his spear gun in the sea."

2.1.6 Verb Stem Class 6 Constructions. Class 6 is intransitive. There is an obligatory absence of the Object tagmeme, and the situational role of goal is not carried by any of the other tagmemes in constructions dependent on Class 6.
Many of the members of the class are verbs of motion, and a number of them have membership in a transitive class. The Subject of these constructions is actor of the action, sometimes with a reflexive connotation: e.g., qolib "hide" (oneself, rather than something). The Associative (obligatorily absent in the Subject focus construction marked by -om-, and in the Referent focus construction) indicates the concomitant of the action, that which accompanies or is taken along with the actor. The Referent is the place towards which verbs of motion are directed, the destination of the action, or with some verbs (e.g., -tnek "to stand up", táda "dance") the location or site of the action.

Stems participating in a transitive class as well as an intransitive class allow different semantic interpretations of the Associative tagmeme, depending on which class the stem is representing in any given clause. See the paradigm below in which the stem qolib "hide" is illustrated in constructions representing both Class 6 and Class 1.

**Representative Stems**

<table>
<thead>
<tr>
<th>Stems</th>
<th>Meaning</th>
<th>Stems</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-tnek</td>
<td>&quot;stand&quot;</td>
<td>disna</td>
<td>&quot;sit&quot;</td>
</tr>
<tr>
<td>gasngen</td>
<td>&quot;draw near&quot;</td>
<td>havas</td>
<td>&quot;pass&quot;</td>
</tr>
<tr>
<td>karo</td>
<td>&quot;depart&quot;</td>
<td>rawat</td>
<td>&quot;serve&quot;</td>
</tr>
<tr>
<td>toaw</td>
<td>&quot;go out&quot;</td>
<td>-sdep</td>
<td>&quot;enter&quot;</td>
</tr>
<tr>
<td>táda</td>
<td>&quot;dance&quot;</td>
<td>-sbat</td>
<td>&quot;collide&quot;</td>
</tr>
</tbody>
</table>
Formal Paradigm 6.

1. $VC_6sf \rightarrow Pv_6^{\text{om}} + T/S$ (+R)

3'. $VC_6af \rightarrow Pv_6^{\text{qi}} + S + T/A$ (+R)

4'. $VC_6rf \rightarrow Pv_6^{\text{an}} + S + T/R$

Citation Paradigm 6.

1. qomasngen $^{\text{sf}}$-draw near $T$ man $R$ house
   "The man is drawing near to the house."

3'. qiasngen no tao $^{\text{af}}$-draw near $S$ man $T$ book $R$ house
   "The man is taking a book near to the house."

4'. qasngenan $^{\text{draw near-rf}}$ no tao $^{\text{qo}}$ vahay
   "The man is drawing near to the house."

The following paradigms (some optional nuclear tagmemes omitted) illustrate the different semantic interpretations of the Associative tagmeme (as accessory or concomitant) and Subject tagmeme (as actor or reflexive actor) when in constructions based on the same stem but representing different stem classes. It should be noted also that the concomitant of an intransitive verb (see libro "book", below) becomes the goal (Object phrase below) of a transitive verb.
Representing Class 6:

1. qomolib go tao do kahon  
   sf-hide T  man R  box  
   "The man is hiding (himself) behind the box."

3. qiolib no tao go libro do kahon  
   ar-hide S  man T  book R  box  
   "The man is hiding behind the box with a book."

4'. golivan no tao go kahon  
    hide-rr S  man T  box  
    "The man is hiding behind the box."

Representing Class 1:

1. mangolib go tao so libro no kahon do vahay  
   sf-hide T  man O  book A  box R  house  
   "The man is hiding the book behind the box, in the house."

2. goliven no tao go libro no kahon do vahay  
   hide-of S  man T  book A  box R  house  
   "The man is hiding the book behind a box in the house."

3. gipangolib no tao go kahon do vahay  
   ar-hide S  man T  box R  house  
   "The man is hiding (something) behind a box in the house."

3'. gilib no tao so libro go kahon do vahay  
   ar-hide S  man O  book T  box R  house  
   "The man is hiding a book behind a box in the house."

4. pangolivan no tao go vahay  
   hide-rr S  man T  house  
   "The man is hiding (something) in the house."
4'. qolivan no tao so libro go vahay
    hide-rf' S man O' book T house
  "The man is hiding a book in the house."

5. qipangolib no tao so libro go kayvana do vahay
    bf-hide S man O' book T friend-his R house
  "The man is hiding a book in the house for his friend."

A few stems of Class 6 occur in another Subject focus construction which allows an Associative tagmeme to be optionally stated. Such stems include qonot "follow", sali "drop by", and songet "go out".

The construction is as follows:

**Formal Statement.**

1. \( VC6^\prime \text{sf} \rightarrow Pav6^\prime \text{mang-} + T/S (+A) (+R) \)

**Citation Statement.**

mangonot go tao no libro do kayvana
    sf-follow T man A book R friend-his

"The man is following his friend with a book."

Compare:

qomonot go tao do kayvana
    sf-follow T man R friend-his

"The man is following his friend."

manali go tao no libro do vahay
    sf-drop by T man A book R house

"The man is dropping by the house with a book."
Compare:

\[
\text{somali} \quad \text{go} \quad \text{tao} \quad \text{do} \quad \text{vahay}
\]

\[ sf\text{-drop by} \quad T \quad \text{man} \quad R \quad \text{house} \]

"The man is dropping by the house."

The stem sali "drop by" is also a member of Class 1.

\[
\text{manali} \quad \text{go} \quad \text{tao} \quad \text{so} \quad \text{libro} \quad \text{do} \quad \text{vahay}
\]

\[ sf\text{-drop by} \quad T \quad \text{man} \quad O \quad \text{book} \quad R \quad \text{house} \]

"The man is dropping by the house for a book."

Stems which can occur in VC6\text{sf} are classified as follows:

\[ \text{gonot} \ (6,6') \]

2.1.7 Verb Stem Class 7 Constructions. This set of constructions differs from those of verb stem Class 6 by at least two characteristics. The exponents of the Subject of a verb stem from Class 7 cannot be an animate noun. Following a verb stem from Class 6, the Subject is usually an animate noun. There is moreover no Associative focus construction in Set 7 as there is in Set 6. The absence of this construction, which could perhaps be postulated for some of Class 6 stems without semantic incongruity, suggests that non-occurring sentences translatable as "the tree sits down", and "the man flows" are not merely

\[ \text{gonot} \ (6,6') \]

---

6 It is possible for example, to imagine an Associative tagmeme for a sentence translated as "the water flows." It could express the concomitant, meaning "that which is carried along by the flow of the water."
incongruous, that is, the result of lexical co-occurrence restrictions, but are ungrammatical.

Representative Stems.

- kboal  "boil"  - tbaang  "sprout"
  goyog  "flow"  ninyas  "burn"
  -gtoos  "fall"

Formal Paradigm 7.

1. VC7sf  →  Pv7  +  T/S  (+R)

4'. VC7rf  →  Pv7  +  S + T/R

Citation Paradigm 7.

1. tombaang  qo  wakay  do  takey
  sf-sprout  T  sweet potato  R  field

"The sweet potato is sprouting in the field."

2. qatbaangan  no  wakay  qo  takey
  rf-sprout  S  sweet potato  T  field

"The sweet potato is sprouting in the field."

2.1.8 Verb Stem Class 8 Constructions. Stem Class 8 is another intransitive class. The semantic interpretation of the constituent tagmemes of the dependent constructions is the same as that given for the constructions of verb stem Class 6. Contrast with Set 6 is found in the different affixation in the Predicates of each set correlated with the different verb stem Classes substitutable in the Predicate.
It is possible that this class could be considered as a subgroup of Class 6, consisting of a series of derived stems, the pay- prefix being the derivation. The Subject focus prefix may- could be considered to be the result of a regular morphophonemic combination of -om- + pay- (note that -om- + paray "plant rice" > maray.) However, it would be difficult to assign any meaning to the derivation.

Representative Stems

<table>
<thead>
<tr>
<th>lagaw</th>
<th>&quot;raise one's head&quot;</th>
<th>haos</th>
<th>&quot;go through&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>yayo</td>
<td>&quot;run&quot;</td>
<td>gawat</td>
<td>&quot;swim&quot;</td>
</tr>
<tr>
<td>weswes</td>
<td>&quot;turn&quot;</td>
<td>dadaay</td>
<td>&quot;lie&quot;</td>
</tr>
<tr>
<td>dividì</td>
<td>&quot;take a walk&quot;</td>
<td>qatovang</td>
<td>&quot;cross over&quot;</td>
</tr>
<tr>
<td>ramway</td>
<td>&quot;stay overnight&quot;</td>
<td>ragmon</td>
<td>&quot;wash one's face&quot;</td>
</tr>
</tbody>
</table>

Formal Paradigm 8.

1. \( VC^8_{sf} \rightarrow PV^8_{may-} + T/S \) (+R)
2. \( VC^8_{af} \rightarrow PV^8_{qipay-} + S + T/A \) (+R)
3. \( VC^8_{rf} \rightarrow PV^8_{pay--an} + S + T/R \)

Citation Paradigm 8.

1. \( may\text{weswes}_s\tfrac{q}{t} \text{ tao do takey} \)
   \( sf\text{-turn} \quad T \quad \text{man R Field} \)
   "The man is turning back in the field."

3. \( qipay\text{weswes}_a\tfrac{q}{s} \text{ tao go rara na do takey} \)
   \( af\text{-turn} \quad S \quad \text{man T load his R Field} \)
   "The man is turning back with his load in the field."
4. **payweswesan no** tao go takey.
   *rf-turn* S man T field

"The man is turning back in the field."

2.1.9 Verb Stem Class 9 Constructions. This set of constructions contrasts with Set 8 in that the Subject exponents of Set 9 are obligatorily plural, since they represent reciprocal actors. Set 7 Subject exponents may be either singular or plural expressing merely actor, or reflexive actor.

Representative Stems.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>diman</td>
<td>&quot;fight&quot;</td>
</tr>
<tr>
<td>sisirin</td>
<td>&quot;converse&quot;</td>
</tr>
<tr>
<td>qonot</td>
<td>&quot;follow&quot;</td>
</tr>
<tr>
<td>pana</td>
<td>&quot;spear&quot;</td>
</tr>
<tr>
<td>rawa</td>
<td>&quot;injure&quot;</td>
</tr>
<tr>
<td>valat</td>
<td>&quot;block&quot;</td>
</tr>
<tr>
<td>toktok</td>
<td>&quot;peck&quot;</td>
</tr>
<tr>
<td>panaka</td>
<td>&quot;spear&quot;</td>
</tr>
</tbody>
</table>

Formal Paradigm 9.

1. VC9_{sf} → Pv9_{may} + T/S (+A) (+R)
2. VC9_{af} → Pv9_{gipay} + S + T/A (+R)
3. VC9_{rf} → Pv9_{pay-an} + S (+A) + T/R

Citation Paradigm 9.

1. maydiman sa go tao no qipangan do takey
   *sf-fight* 5l. T man A knife R field

"The men are fighting each other with knives in the field."

3. gipaydiman no tao go qipangan do takey
   *af-fight* S man T knife R field

"The men are fighting each other with knives in the field."
4. **paydimanan** no tao no qipangan go takey
.rf-fight S man A knife T field

"The men are fighting each other with knives in the field."

2.1.10 Verb Stem Class 10 Construction. Some stems belonging to Class 1 participate in an additional Subject focus construction, usually without apparent distinctiveness from the Subject focus constructions of the same verbs marked by **mang-**, except that Associative phrases may not occur with the following construction.

**Representative Stems.**

- gakot "transfer"
- gayak "lead"
- tabas "slash"
- laqlas "trample"
- gapin "weave mat"

- tótoh "pound"
- sagsag "chop meat in small pieces"
- wadwand "weed"
- soho "illumine"
- tadinang "drum"

**Formal Statement 10.**

1. \[ VC_{10}^{sf} \rightarrow PV_{10}^{may-} + T/S (+0) (+R) \]

**Citation Statement 10.**

1. **maytabas** go tao so tamek do takey
.sf-slash T man O weed R field

"The man is slashing weeds in the field."

Compare:

1. **manabas** go tao so tamek no lókoy na do takey
.sf-slash T man O weed A bolo his R field

"The man is slashing weeds with his bolo in the field."
The last two representative stems listed above do show semantic change when in the Predicate of VC10sf.

Compare the following forms:

\[
\text{mayscho qo tao so linti do gágan} \\
\text{sf-illumine T man O flashlight R outside}
\]

"The man turns on the flashlight outside."

\[
\text{manoho qo tao so libro no linti do gágan} \\
\text{sf-illumine T man O book A flashlight R outside}
\]

"The man illumines the book with a flashlight outside."

\[
\text{maytadivang qo tao so láta} \\
\text{sf-drum T man O can}
\]

"The man is using a can for a drum."

\[
\text{manadivang qo tao so láta} \\
\text{sf-drum T man O can}
\]

"The man is drumming on the can."

Two stems of Class 2 which also occur in the Predicate of VC10sf are galága "care for" and nasnas "scrape."

Elicited data show the construction to be precisely the same with galága "care for," as when Class 1 stems occur.

Compare:

\[
\text{mayalága qo tao so baka} \\
\text{sf-care for T man O cow}
\]

"The man is caring for a cow."

\[
\text{mangalága qo tao so baka} \\
\text{sf-care for T man O,R cow}
\]

"The man is caring for a cow."
With nasnas "scrape," however, the optional Object alternates with Referent as in the equivalent Class 2 construction.

Compare:

maynasnas go tao \( \begin{array}{c} \text{SO} \\ \text{DO} \end{array} \) láta
sf-scrape T man O,R can
"The man is scraping a can."

mannasnas go tao \( \begin{array}{c} \text{SO} \\ \text{DO} \end{array} \) láta
sf-scrape T man O,R can
"The man is scraping a can."

This stem is therefore listed in the lexicon as nasnas \((2,8 \rightarrow 0,R)\).

A series of stems from Classes 1, 2 and 4 are irregular in that the Subject focus construction has a prefix may- rather than the expected mang-. These stems include the following:

moha(1) "plant" gatap(2) "roof"
kakovot(1) "marry" maando(2) "command"
rara(1) "carry" dakaw(4) "sell"
talamad(1) "view" handa(4) "prepare"

This change is apparently in some instances, a device to avoid ambiguity with homophonous stems. Thus mayrara means "to carry" whereas manrara means "to invite." Likewise mayhanda means "to prepare" and manhanda means "to
serve." The substitution of may- for mang- with the above stems is indicated in the class notation in the lexicon as follows:

\[ \text{moha} \quad (\text{mang} \rightarrow \text{may}) \]

2.1.11 Verb Stem Class 11 Construction. This construction contrasts with the verb stem Class 10 construction by the obligatory absence of the Object tagmeme in \( VC11_{sf} \) versus an optional Object in \( VC10_{sf} \). Different verb stem classes provide the second criterion. Class 10 stems are transitive; Class 11 stems are intransitive. Some of the latter stems are translatable as predicative adjectives, e.g. nahaid "be slow", kitani "be alone", others are translatable as verbs with reflexive actors, e.g. hojihoji "move (oneself)", raqmon "wash one's own face". Some of the stems also occur transitively in other classes. A subclass of stems within Class 11 consists of numerals with a derivational affix pi- meaning "frequency".

Representative Stems.

Other Class membership is given in parentheses.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Meaning</th>
<th>Representative Stems</th>
</tr>
</thead>
<tbody>
<tr>
<td>kitani</td>
<td>&quot;be alone&quot;</td>
<td>hojihoji(4) &quot;shake, move&quot;</td>
</tr>
<tr>
<td>nahaid</td>
<td>&quot;be slow&quot;</td>
<td>tolyang(2) &quot;hole&quot;</td>
</tr>
<tr>
<td>nahagtas</td>
<td>&quot;cease&quot;</td>
<td>tadiyang(1,10) &quot;drum&quot;</td>
</tr>
<tr>
<td>sanga</td>
<td>&quot;forked&quot;</td>
<td>galoggaw(4) &quot;visit&quot;</td>
</tr>
<tr>
<td>liliak</td>
<td>&quot;speak&quot;</td>
<td>ronoron(1) &quot;shift, move&quot;</td>
</tr>
</tbody>
</table>
Numeral Stems include:

\[
\begin{align*}
\text{piqsa} & \quad \text{"once"} \\
\text{pito} & \quad \text{"three times"} \\
\text{pidima} & \quad \text{"five times"} \\
\text{pipito} & \quad \text{"seven times"} \\
\text{pisiam} & \quad \text{"nine times"} \\
\text{pioni} & \quad \text{"eleven times"} \\
\text{pibainti} & \quad \text{"twenty one times"} \\
\text{pibainti dos} & \quad \text{"twenty two times"}
\end{align*}
\]

Formal Statement 11.

\[\text{VCll} \; \text{sf} \rightarrow \text{PVll} \; \text{may-} + T/S\]

Citation Statement 11.

\[
\begin{align*}
\text{maychitani} & \quad \text{qo tao} \\
\text{sf-alone} & \quad \text{T} \quad \text{man}
\end{align*}
\]

"The man is alone."

\[
\begin{align*}
\text{maynahaqtas} & \quad \text{qo timoy} \\
\text{sf-cease} & \quad \text{T} \quad \text{rain}
\end{align*}
\]

"The rain is ceasing."

\[
\begin{align*}
\text{mayliliak} & \quad \text{qo tao} \\
\text{sf-speak} & \quad \text{T} \quad \text{man}
\end{align*}
\]

"The man is speaking."

\[
\begin{align*}
7\text{Borrowed Spanish numerals are usually used in counting beyond ten. The pre-Spanish method of counting is described below on p. 108, for multiples of ten, and on p. 115 for numerals between ten and twenty.}
\end{align*}
\]
mayhojihoji go tao
sf-move T man
"The man is moving."

maytolyang go lamisa
sf-hole T table
"The table has a hole in it."

maytadivang go tao
sf-drum T man
"The man is getting a drum." or "The man is the drum-getter."

maypiqsa go solto di Tako
sf-once T strike L Tako
"A strike will be given once to Tako" or "Tako will be struck once."

Compare the following examples in which qaloqgaw "visit" occurs first transitively as a member of Class 4, and second intransitively as a member of Class 11.

mangaloqgaw go tao so no kayvana
sf-visit T man 0, friend-his
"The man is visiting his friend."

mayaloggaw go tao do kayvana
sf-visit T man L friend-his
"The man is visiting in the place of his friend."

This construction (VCl1_ssf) is equivalent in some ways to the Subject focus construction of verb stem Class 6 (VC6_ssf) in that both are intransitive constructions.
VC11\textsubscript{sf} however does not have the transform potential of VC6\textsubscript{sf} which may transform to Accessory and Referent focuses. At least two stems, disna "sit" and sogat "dive" participate in both classes.

\begin{verbatim}
maydisna go tao do bangko
domisna go tao do bangko
sf-sit T man R seat
"The man is sitting on the seat."

maysogat go tao do taaw
somogat go tao do taaw
sf-dive T man R sea
"The man is diving into the sea."
\end{verbatim}

2.1.12 Verb Stem Class 12 Construction. Class 12 is a derived intransitive verb stem Class based on descriptive stems, as verb stem Class 5 is a derived transitive class based on nouns. Class 12 consists of descriptive stems with a pa- derivational prefix meaning "to become." The non- causative construction based on this class differs from the construction described for verb stem Class 11 by the following criteria:

a. There are different verb stem classes in the Predicates.

b. Verbs of stem Class 12, being derived from descriptive, have potential for inflection for degree (positive, comparative and superlative) as well as plurality of the Topic Subject. Verbs of Class 11 do not have this
potential.

c. Correlated with comparative degree inflection in
the verb stem Class 12 construction is the optional
occurrence of a Comparative tagmeme, which is always
obligatorily absent in the verb stem Class 11 construction. 8

Representative Stems.

paqpaw "become light" parahmet "become heavy"
palkem "become old" pamotdeh "become young"
paanáro "become long" payñed "become short"
papia "become better" parahet "become worse"
padékey "become small" parakch "become big"

Formal Statement.

VCL2sf → Pvl2may- + T/S (+Com)

Citation Statement.

maypaqpaw go qalat ko
sf-become light T basket my
"My basket is becoming light."

maypaqpaw go alat ko kan alat mo
sf-comp-become light T basket my Com basket your
"My basket is becoming lighter than your basket."

---

8 The Comparative tagmeme is introduced by the marker kan. Its allowable expansions have not been checked with an informant and it is therefore not included in the Exponence statements of Section 4.1.
2.1.13 Additional-Goal Constructions. All stems of Class 1, and a number of stems from the other transitive classes, also participate in a series of three syntagmomes relatable, but not freely derivable from the basic syntagmomes listed for each of the above stem types. These patterns express activities performed upon an additional goal and are translatable as "a performed b on c also," or if expanded "a performed b on c as well as d," where a is Subject, b is Predicate, c is Object and d is Referent. A further optional Referent is nuclear to these syntagmomes. This expresses location and may function as Topic of a Referent focus clause. The Referent expressing goal (d above) may not function as Topic in this set of clauses. The Referents are distinguished in the formal paradigm with subscripts g (goal) and lo (location).

Formal Paradigm.

6. \[ \text{VCad}_{sf} \rightarrow \text{Pad}_{\text{maPa}} + T/S \ ( +0 ) \ ( +R_{g} ) \ ( +R_{lo} ) \]

7. \[ \text{VCad}_{of} \rightarrow \text{Pad}_{\text{pa-en}} + S + T/O \ ( +R_{g} ) \ ( +R_{lo} ) \]

8. \[ \text{VCad}_{rf} \rightarrow \text{Pad}_{\text{pa-an}} + S + O' \ ( +R_{g} ) \ +T/R_{lo} \]

Citation Paradigm.

6. mapararayaw  go tao so libro ko do libro mo do gagan libro mo  
               sf.add goal-destroy T man O book my Rg book your
               \( R_{lo} \) outside

"The man is destroying my books as well as yours outside."
7. **pararayawen** no tao go libro ko do libro mo
   **of.addgoal-destroy** S man T book my Rg book your
   do **gagan**
   Rlo outside

   "The man is destroying *my books* as well as yours outside."

8. **pararayawan** no tao so libro ko do libro mo
   **rf.addgoal-destroy** S man O book my Rg book your
   go **gagan**
   T outside

   "The man is destroying my books as well as yours *outside*."

Since there are some stems from the transitive classes which may not occur with these additional-goal constructions, it is necessary to provide a notation to add to the stem class number to indicate whether or not the stems may so occur. If a stem may take these constructions, **ad** will follow the stem class notation. *e.g.* **rarayaw** (l,ad).

### 2.2.0 Causative Verbal Clauses

The transitive-intransitive dichotomy established by the verb stem classes with non-causative verbal constructions is highly relevant to causative verbal constructions. In general, stems from transitive classes occur with one set of causative constructions, whereas stems from intransitive classes occur with another set of causative constructions. Since there are some exceptions, stem class notation in the lexicon includes a reference to the causative constructions a given stem may take.
2.2.1 Type 1 Causative Constructions. The majority of stems in transitive classes occur with Type 1 causative constructions (stem class notation--cl). The Subject of all causative constructions represents the initiator of the action, the causer. In this set the actor of the action is represented by a Referent phrase, which is homophonous with a Referent phrase indicating location. However these are considered separate tagmemes and therefore subscripted respectively with a (actor) and 10 (location) since they have a definite order relative to one another, (Rₐ always precedes Rₐ₀) and they are focussed with different affixes in the Predicate. Rₐ is Topic when the verb carries a pang--en affix combination; Rₐ₀ is Topic when the verb carries a pa--an affix combination. The goal of a caused action is usually indicated by Object.

Formal Paradigm cl.

1. VCclₛf → Pclₘₐₐₚₐ- + T/S (+Rₐ) (+0) (+Rₐ₀)
2. VCclᵣaf → Pclₚₚₐₕ₎ₐng--ₐn + S + T/Rₐ (+0) (+Rₐ₀)
3. VCclₒf → Pclₕᵦₐₚₙₐ- + S (+Rₐ) + T/O (+Rₐ₀)
4. VCclᵣₒf → Pclₚₐ--ₐₜₐn + S (+Rₐ) (+0) + T/Rₐ₀

Citation Paradigm cl.

1. mapararayaw go tao do kayvana so libro do
sf-destroy T man Rₐ friend-his O book Rₐ₀

gågan outside

"The man is letting his friend destroy the book outside."
2. **panrarayawen** no tao go kayvana so libro do
rafi-destroy S man T friend-his O book R

gágan
outside

"The man is letting his friend destroy the book outside."

3. **qipararayaw** no tao do kayvana go libro do
of-destroy S man Ra friend-his T book R

gágan
outside

"The man is letting his friend destroy the book outside."

4. **pararayawan** no tao do kayvana so libro go
rlof-destroy S man Ra friend-his O book T

gágan
outside

"The man is letting his friend destroy the book outside."

The goal of stems from Class 2 may be represented by Referent as well as by Object tagmemes as in the Class 2 non-causative constructions. Similarly, stems from Class 3 indicate goal only with a Referent tagmeme whereas stems from Class 4 indicate goal with Associative or Object tagmemes. The goal of stems from Class 5 is implicit in the Predicate and there is therefore an obligatory absence of the Object tagmeme. These variations of the above formulae are formally stated as follows:

\[
\begin{bmatrix}
0, R \\
R \\
\emptyset
\end{bmatrix}
\rightarrow
\begin{bmatrix}
v_2 \\
v_3 \\
v_4 \\
v_5
\end{bmatrix}
\]

Correlated with the obligatory absence of Object with Class 5 verb stems is the restriction of Class 5 stems from
occurring in the Predicate of \( VCl_{of} \). This restriction is formally stated below in the section dealing with Predicate Exponents.

Formal ambiguity occurs between some occurrences of additional-goal constructions and causative constructions when certain of the optional tagmemes of these clauses are not present. For example:

\[
\begin{align*}
\text{mapararayaw} &\quad \text{go} & \quad \text{tao} &\quad \text{so} & \quad \text{libro} &\quad \text{mo} \\
\text{sf-destroy} &\quad \text{T} & \quad \text{man} &\quad \text{0} & \quad \text{book} &\quad \text{your} \\
\end{align*}
\]

"The man is destroying your book also."

\[
\begin{align*}
\text{mapararayaw} &\quad \text{go} & \quad \text{tao} &\quad \text{so} & \quad \text{libro} &\quad \text{mo} \\
\text{sf-destroy} &\quad \text{T} & \quad \text{man} &\quad \text{0} & \quad \text{book} &\quad \text{your} \\
\end{align*}
\]

"The man is letting someone destroy your book."

The addition of one or more Referent tagmemes eliminates the ambiguity. For example:

\[
\begin{align*}
\text{mapararayaw} &\quad \text{go} & \quad \text{tao} &\quad \text{so} & \quad \text{libro} &\quad \text{mo} &\quad \text{do} &\quad \text{libro} &\quad \text{ko} \\
\text{sf-destroy} &\quad \text{T} & \quad \text{man} &\quad \text{0} & \quad \text{book} &\quad \text{your} &\quad \text{R} &\quad \text{g} &\quad \text{book} &\quad \text{my} \\
\end{align*}
\]

"The man is destroying your book with mine."

\[
\begin{align*}
\text{mapararayaw} &\quad \text{go} & \quad \text{tao} &\quad \text{do} & \quad \text{kayvana} &\quad \text{so} &\quad \text{libro} &\quad \text{mo} \\
\text{sf-destroy} &\quad \text{T} & \quad \text{man} &\quad \text{R} & \quad \text{friend-his} &\quad \text{0} & \quad \text{book} &\quad \text{your} \\
\end{align*}
\]

"The man is letting his friend destroy your book."

In some instances of potential ambiguity between causative and additional-goal constructions with Class 1 stems in the Predicate, the Object tagmeme of the causative construction becomes Associative, analogously with Class 4. Such stems include \text{gamoqmo} "frighten", and \text{-kbeng} "tweak".
For example:

\[\text{paamqmoan go tao so motdeh do vahay}\]
\[\text{rf-frighten T man O child R house}\]

"The man is frightening the child in the house also."

\[\text{paamqmoan go tao no motdeh do vahay}\]
\[\text{rlof-frighten T man A child R house}\]

"The man is letting someone frighten the child in the house."

2.2.2 Type 2 Causative Constructions. Most stems from the intransitive classes participate in Type 2 causative constructions. In these constructions the actor of the action is not expressed by a Referent phrase as in Type 1 causative constructions discussed in the previous section, but by the Object and Object prime phrases. The Associative phrase indicates the concomitant; the Referent indicates the site, destination or location of the action as in the equivalent non-causative intransitive constructions. In Type 1 causative constructions the Object prime tagmeme does not occur; in Type 2, it is obligatory in both the Associative and Referent focus clauses. One further difference between this set of constructions and the Type 1 constructions is that the phrase signifying the actor of the action is in focus, whereas the latter have the combination \text{pang--en} to signify this focus.\footnote{The focus is the same in that \text{pa--en} and \text{pang--en} both signal that the actor of the action is the Topic of the}
Formal Paradigm C2.

1. \( \text{VCc}_2 \text{sf} \rightarrow \text{Pc}_2 \text{mapa-} + \text{T/S} (+O) (+A) (+R) \)
2. \( \text{VCc}_2 \text{of} \rightarrow \text{Pc}_2 \text{pa--en} + \text{S} + \text{T/O} (+A) (+R) \)
3. \( \text{VCc}_2 \text{af} \rightarrow \text{Pc}_2 \text{gip-} + \text{S} + \text{O'} + \text{T/A} (+R) \)
4. \( \text{VCc}_2 \text{rf} \rightarrow \text{Pc}_2 \text{pa--an} + \text{S} + \text{O'} (+A) + \text{T/R} \)

Citation Paradigm C2.

1. \( \text{mapadisna} \text{qo tao so kayvana no libro do bangko} \text{sf-sit T man O' friend-his A book R seat} \)
   "The man is letting his friend sit on the seat with (holding) a book."

2. \( \text{padisnahen} \text{no tao go kayvana no libro do bangko} \text{of-sit S man T friend-his A book R seat} \)
   "The man is letting his friend sit on the seat with a book."

3. \( \text{qipadisna} \text{no tao so kayvana go libro do bangko} \text{af-sit S man O' friend-his T book R seat} \)
   "The man is letting his friend sit on the seat with a book."

4. \( \text{padisnaan} \text{no tao so kayvana no libro go bangko} \text{rf-sit S man O' friend-his A book T seat} \)
   "The man is letting his friend sit on the seat with a book."

Predicates of causative constructions manifesting verb stems from intransitive classes 8, 9, 11 and 12 show pay- as the causative prefix instead of pa-. This variation may be formally stated as:

clause. The focus is different however in that with pa--en, Topic is the transform of an Object phrase, whereas with pang--en, Topic is the transform of a Referent phrase.
This is illustrated in the following paradigm with *dividi* "take a walk" from verb stem Class 8. (Some optional nuclear tagmemes are omitted.)

1. mapaydividi qo tao so kayvana
   sf-take a walk T man O friend-his
   "The man is letting his friend take a walk."

2. paydividien no tao qo kayvana
   of-take a walk S man T friend-his
   "The man is letting his friend take a walk."

3. qipaydividi no tao so kayvana go chito na
   af-take a walk S man O friend-his T dog his
   "The man is letting his friend go for a walk with his dog."

4. paydividian no tao so kayvana go takey
   rf-take a walk S man O friend-his T field
   "The man is letting his friend take a walk in the field."

The obligatory presence of Object prime in the Associative and Referent focus constructions (3 and 4 above) prevents ambiguity with the equivalent non-causative constructions which have an obligatory absence of Object. Compare the following two examples with numbers 3 and 4 in the preceding paradigm.
1. qipaydividi no tao go chito na
   af-take a walk  S  man  T  dog  his
   "The man is taking a walk with his dog."

2. paydividian no tao go takey
   rf-take a walk  S  man  T  field
   "The man is taking a walk in the field."

Data on the causatives of verb stem Class 11 are incomplete and definitive statements cannot be made. It is assumed however that at least Subject focus and Object focus forms are allowable, but not Associative focus and Referent focus forms. The following two sentences, in which liliak "speak" from Class 11 occurs, are found in the data.

   mapaylliliak go tao so kayvana
   sf-speak  T  man  O  friend-his
   "The man is letting his friend speak."

   paylliliaken no tao go kayvana
   of-speak  S  man  T  friend-his
   "The man is letting his friend speak."

The stems of verb stem Class 7 have not been fully tested for causative potential. Some indications appear however with two stems, -kboal "boil" and -gtoos "drop". Object focus constructions have been elicited using both of these stems.

   pakboalen no tao go danom
   of-boil  S  man  T  water
   "The man is causing the water to boil," or "The man is boiling the water."
"The man is causing the stone to drop," or "The man is dropping the stone."

The alternative translations for these clauses indicate a reinterpretation of the stems as non-causative and as representing transitive verb stem Class 1. This is established formally by the occurrence of the following two clauses which show a sequence of two pa- affixes, the one adjacent to the stem being here a derivative, transitivizing prefix, the outer one being part of the inflectional affixation of the Object focus of transitive causative constructions (VCcl).

"The man is letting his friend boil the water."

Such transitively derived stems with pa- (and thus having the Class notation 1(pa-)) also participate in a Beneficiary focus construction which is structurally homophonous with the Associative focus of intransitive causative constructions. The Topic of the clause, however, is not Associative but Beneficiary. Ambiguity does not result since the stems of Class 7 do not have concomitants
which would be expressed by the Associative tagmeme, and would not otherwise participate in Associative focus constructions. The formal statement of this construction is as follows:

Formal Statement.
\[ VCl(pa-)_{bf} \rightarrow Pvl(pa-)_{qi} + S + O' + T/B \]

Citation Statement.

\[
\begin{align*}
\text{qipakboal} & \quad \text{no tao so danom go kayvana} \\
\text{bf-boil} & \quad \text{S man O' water T friend-his} \\
\text{"The man is boiling water for his friend."}
\end{align*}
\]

\[
\begin{align*}
\text{qipagtoos} & \quad \text{no tao so bato go kayvana} \\
\text{bf-drop} & \quad \text{S man O' stone T friend-his} \\
\text{"The man is dropping a stone for his friend."}
\end{align*}
\]

Compare the above examples with structurally homophonous intransitive causative constructions using stems from Class 6:

\[
\begin{align*}
\text{qipaasngen} & \quad \text{no tao so kayvana go libro} \\
\text{af-draw near} & \quad \text{S man O' friend-his T book} \\
\text{"The man is letting his friend come near with the book."}
\end{align*}
\]

\[
\begin{align*}
\text{qipakaro} & \quad \text{no tao so kayvana go libro} \\
\text{af-depart} & \quad \text{S man O' friend-his T book} \\
\text{"The man is letting his friend depart with the book."}
\end{align*}
\]

Some stems from verb stem Class 6 which may have only an animate actor when non-causative, may have an inanimate "actor" when causative. Such stems are also reinterpretable
as transitive non-causative stems of Class 1, the inanimate actor of the intransitive causative construction becoming the goal of the transitive causative construction. For example:

\[
\text{tomoaw} \quad \text{go} \quad \text{tao} \quad \text{do} \quad \text{vahay} \\
\text{sf-go out} \quad \text{T} \quad \text{man} \quad \text{R} \quad \text{house}
\]
"The man is going out of the house."

\[
\text{patoawen} \quad \text{no} \quad \text{tao} \quad \text{go} \quad \text{libro} \quad \text{do} \quad \text{vahay} \\
\text{of-go out} \quad \text{S} \quad \text{man} \quad \text{T} \quad \text{book} \quad \text{R} \quad \text{house}
\]
"The man is causing the book to go out of the house," or "The man is taking the book out of the house."

\[
\text{qipapatoaw} \quad \text{no} \quad \text{tao} \quad \text{do} \quad \text{vahay} \\
\text{of-go out} \quad \text{S} \quad \text{man} \quad \text{R} \quad \text{friend-his} \quad \text{T} \quad \text{book} \quad \text{R} \quad \text{lo} \\
\text{vahay} \quad \text{house}
\]
"The man is letting his friend take the book out of the house."

Class 12 stems may likewise be reinterpreted as Class 1 in the causative. Note the following examples in which sentence 1 is an example of VC$_{12}^{sf}$, sentence 2 of VC$_{c2}^{sf}$, sentence 3 of VC$_{c2}^{of}$, and sentence 4 of VC$_{cl}^{of}$.

1. maypaqpaw \quad \text{go} \quad \text{qalat} \quad \text{ko} \\
\text{sf-become light} \quad \text{T} \quad \text{basket} \quad \text{my}
"My basket is becoming light."

2. mapaypaqpaw \quad \text{go} \quad \text{tao} \quad \text{so} \quad \text{qalat} \quad \text{ko} \\
\text{sf-become light} \quad \text{T} \quad \text{man} \quad \text{O} \quad \text{basket} \quad \text{my}
"The man is causing my basket to become light," or
"The man is lightening my basket."

3. paypaqawan no tao go galat ko
   of-become light S man T basket my

"The man is causing my basket to become light," or

"The man is lightening my basket."

4. qipaypaqaw no tao do kayvana go galat ko
   of-become light S man R friend-his T basket my

"The man is letting his friend lighten my basket."
CHAPTER III

NON-VERBAL CONSTRUCTIONS

3.0 Non-verbal constructions are of three main types: Descriptive, Existential, and Nominal. Each of the syn-
tagmemic formulae described contains only nuclear tagmemes. Peripheral tagmemes as described above (pp. 22 and 23) may also be added to each formula, except that Manner tagmeme does not occur in the periphery of non-verbal clauses. Other restrictions on occurrence of peripheral tagmemes (for example, Action Status) probably exist but have not been checked with an informant.

3.1 Descriptive Constructions. Descriptives differ from verbs in that the former are not inflected for tense or aspect as verbs may be, but are inflected for degree (positive, comparative or superlative), as well as plurality (of Subject). Descriptives do not participate directly in causative constructions. They do participate, however, in two exclamatory constructions in which verbs do not occur.

Three clauses form the descriptive paradigm. The first, Descriptive Clause (DC), has two obligatory tagmemes, a descriptive Predicate, inflectable for degree and plurality, and a Topic Subject. An optional Comparative (Com) tagmeme occurs when the descriptive is inflected for comparative degree. This tagmeme is considered nuclear
since it is obligatorily absent in all Verbal Clauses, and its presence is definitive of a Descriptive Clause. The second and third clauses of this series are Exclamatory Descriptive Clauses. The difference (semantically) between these two clauses is at present unclear. The first of the two has an optional Exclamatory tagmeme (qay) before the descriptive Predicate, inflectable only with an exclamatory prefix (ja-). The Subject follows the Predicate. The second Exclamatory Descriptive Clause has an obligatory Exclamatory tagmeme before the Predicate. The Predicate consists not of a single word but of a Manner phrase, containing a descriptive stem introduced by the Manner Relator so. The Subject of Exclamatory Descriptive Clauses is not in portmanteau function with Topic as in the non-exclamatory Descriptive Clauses. No Topic phrase may occur in Exclamatory Clauses.

Representative Descriptive Stems.

-1kem  "old"  vodis  "low"
motdeh  "young"  karang  "tall, high"
pia  "good"  -pteng  "hungry"
rahet  "bad"  -bsoy  "full"
vávaw  "shallow"  golang  "thin"
rahem  "deep"  tava  "fat"

Formal Paradigm.

1. DC $\rightarrow$ Pd + T/S (+Com)
2. $\text{DC}_{\text{ex1}} \rightarrow (\text{Ex}) + \text{Pdex} + S$

3. $\text{DC}_{\text{ex2}} \rightarrow \text{EX} + \text{Pd.man} + S$

Citation Paradigm.

1. \text{mapia} \quad \text{go} \quad \text{tao}
   \quad \text{pos-good} \quad T \quad \text{man}
   "The man is good."

2. \text{japia} \quad \text{na} \quad \text{no} \quad \text{tao}
   \quad \text{ex-good} \quad \text{he} \quad S \quad \text{man}
   "How good the man is!"

3. \text{gav} \quad \text{so} \quad \text{pia} \quad \text{na} \quad \text{no} \quad \text{tao}
   \quad \text{ex} \quad \text{M} \quad \text{good} \quad \text{he} \quad S \quad \text{man}
   "How good the man is!"

3.2 Existential Constructions. Two types of existential constructions occur. The first ($\text{EC}_1$) expresses the existence (or with a negative, the non-existence) of the Topic Subject. It may be freely translated as, "There is an A" (or negatively "There is no A"), where A is the Topic Subject.

The second ($\text{EC}_2$) expresses the existence of something as possessed by the Topic Subject and may be translated, "A has a B", where B is Head of the Topic Subject and A is a possessor phrase within the Topic Subject.

The two constructions differ by the following criteria:
(1) There are different sets of existential stems in each construction. (2) There is an optional presence of a possessor phrase in the Topic Subject of $\text{EC}_1$ versus an
obligatory possessive phrase in the same position of EC₂.

(3) In the question transform of EC₁, the Predicate existential stems are optionally replaceable by the irrealis existential stem qara (also used with a negative) whereas in the question transform of EC₂, qara obligatorily replaces the Predicate existential stems.

Existential Stems.

<table>
<thead>
<tr>
<th>Type</th>
<th>gari</th>
<th>tori</th>
<th>mian</th>
<th>tayto</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. qari</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. mian</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Formal Statement.

1. EC₁ → Pe₁ + T/S
2. EC₂ → Pe₂ + T/S

Citation Statement.

1. gari go chito na
   there is T dog his
   "There is a dog with him," or "He has a dog with him."

2. mian go chito na
   there is T dog his
   "He has a dog," i.e., "He owns a dog."

With Question intonation, sentence 1 above may be either: gari go chito na? or qara go chito na? "Does he have a dog with him?" Sentence 2 above with Question intonation however may only be: qara go chito na? "Does he
own a dog?" The questions using qara are homophonous when (as in the examples above) EC has a possessive phrase in the Topic Subject. Irrealis qara is used in the Predicates of both clauses when either negative qava or qabo "none" is introduced, giving further homophonous clauses. e.g.,

\[\text{qaraavaw} \quad \text{chito na}\]
there IS-neg-T dog his

"There isn't any dog with him," or "He doesn't own a dog."

Examples of Existential Clauses with qabo "none" are:

\[\text{qara paabo go chito na?}\]
there is still-none T dog his

"Does he still have no dog?"

\[\text{tayto paabo go chito na}\]
there is still-none T dog his

"He still does not have a dog."

\[\text{gari paabo go chito ko}\]
there is still-none T dog my

"My dog is still not here."

3.3 Nominal Constructions. Nominal constructions contrast with verbal and descriptive constructions in that the Head of the Predicate phrase is nominal (consisting of an un-inflected stem or its pronominal substitute). These constructions are of three types: Benefactive, Classificational, and Wh-Interrogative.
3.3.1 The Benefactive construction has as Head of the Predicate the stem *dira* signifying possession or benefaction. It may be freely translated as "property." An obligatory possessor phrase follows *dira*. A benefactive pronoun subclass (pr\textsubscript{ben}) which is formally the same as the Locative pronoun subclass (see Chart 4, column 5, p. 97) substitutes for *dira* plus possessor pronoun. The constructional meaning is possession or benefaction depending on context.

**Formal Statement.**

1. $\text{NC}_1 \rightarrow \text{Pn}_1 + T/S$

**Citation Statement.**

1(a) $\text{dira mo qo chito}$

"The dog belongs to you," or "The dog is for you."

1(b) $\text{dimo qo chito}$

"The dog belongs to you," or "The dog is for you."

3.3.2 The Classificational construction has as the exponent of Predicate a general, common noun phrase (i.e., one which is not preceded by the specifying particle *no*) or a proper noun phrase. A personal pronoun may not replace either phrase type. A demonstrative pronoun, however, may expound the Predicate. The constructional meaning is classification, the Predicate classifying the Topic Subject.
A construction with different meaning, but possibly only an etic variant of NC₂ has a locative demonstrative (dem₄) as the Predicate exponent (example 2(e) below).

Formal Statement.

2. $\text{NC}_2 \rightarrow \text{Pn}_2 + T/S$

Citation Statement.

2(a) motdeh qako

child T/I

"I am a child."

(b) si Juan qako

sing.pers. Juan T/T

"I am Juan."

(c) kayvan ko si Juan

friend my T Juan

"Juan is my friend."

(d) niaya gava go chito ko

this neg T dog my

"This is not my dog."

(e) tóri go chito ko

there T dog my

"There is my dog."

3.3.3 Two distinct types of Interrogative constructions exist in Ivatan. Yes-No Interrogatives are usually only intonationally different from their indicative bases. An optional interrogative particle may also occur. Wh-Interrogative constructions have interrogative pronouns
as Predicate Heads and retain indicative intonation. Yes-No Interrogatives are treated as transformationally derived from indicative constructions (see below p.152).

Formal Statement.

3. \( NC_3 \rightarrow Pn_3 + T/S \)

Citation Statement.

3. sino kayvan mo
   who friend your

"Who is your friend?"
CHAPTER IV

CLAUSE EXPONENTS AND PERMUTATIONS

4.0 This chapter provides the basis for carrying out the first stage of clause level exponence and gives the manifestations of each of the clause level tagmemes, both nuclear and peripheral. It also gives a formalized account of the allowable permutations of clause level tagmemes.

4.1 Exponents. The exponence relation is indicated in the following formulae by a colon (:)· This relation is distinct from that relation symbolized by an arrow (→) in previous chapters. The arrow symbolizes an equivalence relation. The formula on the right of an arrow is a lower level expansion (or explanation, in terms of a syntagmemic string,) of a higher level tagmeme exponent symbol on the left of the arrow. The relation indicated by a colon is not an equivalence relation but an exponential relation. This term must be understood in relation to tagmemic theoretical requirements that a unit (in this case a tagmeme) be described with reference to its identifying-contrastive features, its manifestation or exponence, and its distribution.

The identifying-contrastive features of a tagmeme are contained in its grammatical function. Tagmemic function indicates grammatical contrast between otherwise identical
exponential labels.

The manifestation of a unit provides the variant forms which are the unit's exponence. Function and exponence are not distinct constituents of a tagmeme with the function naming a higher level node in a structural tree and the exponence labelling a lower level node as has been erroneously supposed by Postal.1 This is equivalent to construing the exponence relation as an equivalence relation.

Cook has discussed the basic unity of the tagmeme and the relation between tagmemic function and exponence with reference to rational psychology.2 He applies the terms comprehension and extension to function and exponence, respectively. Comprehension is the "meaning proper" or function, and extension is "the thing meant by the sign" or exponence. Cook states:

The relation of comprehension to extension, is the relation between the universal idea comprehended, the 'folk definition,' and the individual units in which it is realized, the extension of the universal. This relation is two-fold. The comprehension depends on the extension, because the comprehension is a universal including all features common to the

1Paul M. Postal "Constituent Structure: A Study of Contemporary Models of Syntactic Description," International Journal of American Linguistics XXX (1964), pt. 3, 37. It may be noted here that it is Postal's failure to recognize the implications of the tagmemic requirement of an adequate distributional statement in terms of a unit's place in class, sequence, and matrix or field, that allows him to state that tagmemics is essentially a context-free not a context-sensitive theory. (Ibid., p. 38.)

individual extension members; and the extension depends on comprehension, as being individual instances in which the comprehension is realized. The universal is abstracted from many individuals; and in turn, is realized in the individuals from which it was abstracted.3

In the following exponential statement nuclear tagmeme exponents are given first and then the peripheral tagmeme exponents.

4.1.1 Nuclear Tagmeme Exponents. Subject, Object prime, Associative and Referent tagmemes may be expounded by noun phrases or pronoun phrases. Object is restricted to common noun phrase manifestation. Referent, when having the situational meaning of location or site is likewise restricted to common noun phrase manifestation plus also locative demonstratives. Topic, when functioning with any tagmeme except a Referent with the situational meaning of site or location (that is, excepting those Referents meaning goal of the action or actor of the action as in causative constructions), is manifested by noun phrases, pronoun phrases and demonstratives. However, when Topic and R_{lo} are in multiple function, the manifesting class is restricted to that noted above for R_{lo} when not functioning also as Topic.

Verbal predicates are expounded by verb phrases or verbs, Descriptive Predicates by descriptive phrases or

3Ibid., p. 30.
descriptives; Exclamatory Descriptive Predicates are manifested by descriptives, and Manner Descriptive Predicates by descriptive phrases of the type which manifest the Manner peripheral tagmeme. Existential Predicates are expounded by the class of existential stems. Nominal Predicates are expounded by noun phrases of various types: Beneficiary noun phrase manifests \( Pn_1 \), Classificational noun phrase manifests \( Pn_2 \), and Interrogative pronoun manifests \( Pn_3 \).

Formal Statement of Nuclear Tagmeme Exponents.

1. \( S, O', A, R_{ac}, R_{go} : N, Pr \)

Each exponential symbol must be subscripted with the function symbol, e.g. \( S: N_s, Pr_s \).

2. \( 0 : N_{co} \)
3. \( R_{lo} : Nc_{lo}, \text{dem}_3 \)
4. \( T : Nc_t, \text{dem}_3 \# \# {R}_{lo} \)
5. \( T : N_t, Pr_t, \text{dem}_1 \# \# \) elsewhere
6. \( P_{v} : V, v \)

Numerals and subscripts must be transferred from the Verbal Predicate cover symbol to the exponential symbol, e.g.,

\[ P_{v3_{\text{mang}}} : V_{3_{\text{mang}}}, v_{3_{\text{mang}}} \]

7. \( Pd : D,d \)
   \( Pd.\text{ex} : d_{\text{ex}} \)
   \( Pd.\text{man} : D_{\text{man}} \)
8. Pe : e
   Pe1 : \textit{<gari>}
   Pe2 : \textit{<gara>}

9. Pn : N
   Pn1 : N\textit{\_}{ben}, \textit{pr\_}{ben}
   Pn2 : N\textit{\_}{class}, \textit{dem\_}{2,4}
   Pn3 : \textit{<sino>}

Chart 1 gives the forms of the four demonstrative subclasses

\begin{center}
\textbf{CHART 1}
\textbf{DEMONSTRATIVE EXPONENTS}
\end{center}

\begin{tabular}{|c|c|c|}
\hline
 & \textbf{this (here)} & \textbf{that (there)} \\
\hline
\textit{dem\_}{1} & \textit{ya} & \textit{gori} \\
\textit{dem\_}{2} & \textit{niaya} & \textit{naori} \\
\textit{dem\_}{3} & \textit{diaya} & \textit{daori} \\
\textit{dem\_}{4} & \textit{tia} & \textit{t\text{\textbar}ori} \\
\hline
\end{tabular}

4.1.2 Peripheral Tagmeme Exponents. Action Status tagmeme is manifested by either one of two particles, \textit{pa} indicating that the action is still in progress or is yet to be performed (i.e., "imperfective"), or \textit{na} (with its morphemically defined alternate \textit{dana}) meaning "now" or "already", indicating that an action is just completed or that it is time for the action to begin (i.e., "perfective"). Examples:
mamaga gako pa
sf-pay T/I yet
"I will yet pay."

maqpanmo ko paava....
of-know S/I still-neg
"I still do not know...."

mangay ta na
sf-go T/we incl. now
"Let us go now."

nangay darana
sf-gone T/they-now
"They have already gone."

Emphasis, Quotative and Negative have single exponents. Emphasis is expounded by sawen "definitely, surely"; Quotative by kono "it is said"; and Negative by qava "not, no". Manner tagmeme has as its Axis exponent either a Duration phrase (Du), a Descriptive clause or a Frequentative clause, i.e., a verbal clause of Type II having a derived numeral (pi- "frequency") as Predicate Head. (See above, section 2.1.11.)

Examples:

somnavat gako so qasa kaaraw
sf-go home T/I M one count-day

4 The absence of Topic in Descriptive and Frequentative fillers of the Axis of a Manner tagmeme is accounted for below. (See section 6.7).
"I went home for one day."

\[ \text{somnavat go home} \quad \text{qako so} \quad \text{makalo quickly} \]

"I went home quickly."

\[ \text{somnavat go home} \quad \text{qako so} \quad \text{naypitdo three times} \]

"I went home three times."

Formal Statement of Peripheral Tagmeme Exponents.

1. AcS : na, pa
2. Em : sawen
3. Qu : kono
4. Neg : qava
5. L : N_{lo}, n_{lo}, dem_{3}, Pr_{lo}
6. Te : N_{te}, n_{te}
7. M : Du_{m}, DC_{m'}, VC_{11}sf_{m}

4.2 Permutations. When each of the tagmemes following Predicate is manifested by a noun phrase, there are two restrictions on the free permutation of the nuclear tagmemes. 1. Predicate and Subject (when not in dual function with Topic) always occur first and second in the clause respectively. Topic is permutable when manifested by a noun phrase. Two Referent tagmemes, R_{go} or R_{ac} followed by R_{lo}, always retain this position although they may be separated by other tagmemes. Otherwise nuclear tagmemes manifested by noun phrases are freely permutable. This
may be formally stated as follows. (The symbol \( \rightarrow \) indicates a transformation relation.)

**Permutation 1 (optional)**

\[ A + B \rightarrow B + A \]

Where \( A, B \) represent \{T, O, A, R, L, Te\} : \( N \)

**Example (a)**

Reading of \( VCl_{sf} \)

\[ Pvl_{mang-} + S/T + O + R \]

Exponent

\[ Pvl_{mang-} : vl_{mang-} \]

\[ T/S : N_t \]

\[ 0 : N_o \]

\[ R : N_r \]

Possible Permutations

1. (Identity) \( vl_{mang-} + N_t + N_o + N_r \)

   mandasda si Juan so kayo do gáagan
   sf-split T Juan 0 wood R outside

2. \( (P + O + T + R) vl_{mang-} + N_o + N_t + N_r \)

   mandasda so kayo si Juan do gáagan
   sf-split 0 wood T Juan R outside

3. \( (P + O + R + T) vl_{mang-} + N_o + N_r + N_t \)

   mandasda so kayo do gáagan si Juan
   sf-split 0 wood R outside T Juan
4. \((P + R + O + T) + N_{r} + N_{o} + N_{t}\)

\(\text{mandasda do gagan so kayo si Juan}\)

\(\text{sf-split R outside O wood T Juan}\)

5. \((P + R + T + O) + N_{r} + N_{t} + N_{o}\)

\(\text{mandasda do gagan si Juan so kayo}\)

\(\text{sf-split R outside T Juan O wood}\)

6. \((P + T + R + O) + N_{t} + N_{r} + N_{o}\)

\(\text{mandasda si Juan do gagan so kayo}\)

\(\text{sf-split T Juan R outside O wood}\)

"Juan is splitting wood outside."

**Example (b)**

Reading of VCl of

\(Pv_{\text{en}} + S + T/O + A + Te\)

Exponence:

\(Pv_{\text{en}} : v_{\text{en}}\)

\(S : N_{s}\)

\(T/O : N_{t}\)

\(A : N_{a}\)

\(Te : N_{te}\)

Possible Permutations:

1. (Identity) \(v_{\text{en}} + N_{s} + N_{t} + N_{a} + N_{te}\)

\(\text{gasdasdahen ni Juan go kayo no kotaw gan sabado}\)

\(\text{of-split S Juan T wood A axe Te Saturday}\)

2. \((P + S + A + T + Te) + N_{s} + N_{a} + N_{t} + N_{te}\)

\(\text{gasdasdahen ni Juan no kotaw go kayo gan sabado}\)

\(\text{of-split S Juan A axe T wood Te Saturday}\)
3. \((P + S + A + T + E + T) \text{ vl}\text{-en} + N_s + N_a + N_t + N_{te}\)

gasdasdahen ni Juan no kotaw qan sabado go kayo wood 

4. \((P + S + T + E + T + A) \text{ vl}\text{-en} + N_s + N_t + N_{te} + N_a + N_{te}\)

gasdasdahen ni Juan qan sabado no kotaw go kayo wood 

5. \((P + S + T + E + T + A) \text{ vl}\text{-en} + N_s + N_t + N_{te} + N_a\)

gasdasdahen ni Juan qan sabado go kayo no 

kotaw axe 

6. \((P + S + T + E + T + A) \text{ vl}\text{-en} + N_s + N_t + N_{te} + N_a\)

gasdasdahen ni Juan go kayo qan sabado no 

kotaw axe 

"Juan will split the wood with an axe on Saturday."

Location when expounded by a locative demonstrative \((\text{dem}_3)\) or noun \((n_{10})\) and Temporal tagmem when expounded by a time word \((n_{te})\) are freely permutable with T,O,A, and R tagmemes when expounded by noun phrases.

\textbf{Permutation 2} (optional)

\[ A + B \Rightarrow B + A \]

where \(A, B\) represent \(\{T, O, A, R\} : N; L: n_{10}, \text{ dem}_3; \text{ Te}: n_{te}\)
Example (c)

Reading of VCl_of

\[ Pvl_{-en} + S + T/O + L + Te \]

Exponent

\[ Pvl_{-en} : vI_{-en} \]
\[ S : N_s \]
\[ T/O : N_o \]
\[ L : dem_3 \]
\[ Te : n_{te} \]

Possible Permutations:

1. (Identity) \[ vI_{-en} + N_s + N_t + dem_3 + n_{te} \]

\[ \text{of-split \ ni \ Juan \ go \ kayo \ diaya \ kakoyab \ here \ yesterday} \]

2. (\(P + S + L + T + Te\)) \[ vI_{-en} + N_s + dem_3 + N_t + n_{te} \]

\[ \text{of-split \ ni \ Juan \ diaya \ go \ kayo \ kakoyab} \]
\[ \text{here \ T \ wood \ yesterday} \]

3. (\(P + S + L + Te + T\)) \[ vI_{-en} + N_s + dem_3 + n_{te} + N_t \]

\[ \text{of-split \ ni \ Juan \ diaya \ kakoyab \ go \ kayo} \]
\[ \text{here \ yesterday \ T \ wood} \]

4. (\(P + S + Te + L + T\)) \[ vI_{-en} + N_s + n_{te} + dem_3 + N_t \]

\[ \text{of-split \ ni \ Juan \ kakoyab \ diaya \ go \ kayo} \]
\[ \text{yesterday \ here \ T \ wood} \]

5. (\(P + S + Te + T + L\)) \[ vI_{-en} + N_s + n_{te} + N_t + dem_3 \]

\[ \text{of-split \ ni \ Juan \ kakoyab \ go \ kayo \ diaya} \]
6. \((P + S + T + Te + L)\) \(vl_{en} + N_s + N_t + n_{te} + \text{dem}_3\)

\[\text{nisdasda ni Juan go kayo kakoyab diaya}\]

\[\text{of-split S Juan T wood yesterday here}\]

"Juan split the wood here yesterday."

As indicated above (p.7), an obligatory permutation is required when non-Topic Subject is expounded by a noun phrase and the Topic by a pronoun. This requirement is formally stated in Permutation 3.

**Permutation 3 (obligatory)**

\[S + X + T \rightarrow T + S + X\]

Where \(X\) is any or no intervening Tagmemes, and \(T\) is Topic in multiple function with any tagmeme other than \(S\).

**Requirement:** \(S:N, T:Pr\)

**Example (a)**

Reading of \(VCl_{of}\)

\[Pv1_{en} + S + T/O\]

Exponence

\[Pv1_{en}: vl_{en}\]

\[S : N_s\]

\[T/O : Pr_t\]

Obligatory Permutation

\[(P + T + S) \text{vl}_{en} + Pr_t + N_s\]

\[\text{sigdongen ka ni Juan}\]

\[\text{of-help T/you S Juan}\]

"Juan will help you."
Example (b)

Reading of VC2\textsubscript{bf}

\[
Pv2\textsubscript{gipang-} + S + R + T/B
\]

Exponence

\[
Pv2\textsubscript{gipang-} : v2\textsubscript{gipang-} \\
S : N_s \\
R : N_r \\
T/B : Pr_t
\]

Obligatory Permutation

\[
(P + T + S + R) \textsubscript{bf-call} \textsubscript{gipanawag gako no tao do kayvan ko} \\
T/me S man R friend my
\]

"The man will call my friend for me."

A further possible transformation of Subject and Referent has not been checked with an informant but is not probable since in other clauses, Subject does not permute with other tagmemes manifested by noun phrases, (see Permutations 1 and 2 above).

Permutation of AcS, Em, Qu, Neg.

Of the remaining peripheral tagmemes Emphasis has not been observed to occur in the same clause with Quotative. Action Status, Emphasis and Negative may occur together, and also Action Status, Quotative and Negative. Any one may occur without the others. When occurring concurrently, these tagmemes retain their relative positions as in the
reading, and no other tagmeme, nuclear or peripheral, may occur between them. Their position in relation to other tagmemes requires an obligatory permutation to one of two positions. (1) If a pronoun (manifesting either Subject or any non-Subject Topic following Permutation 3) is adjacent to the Predicate these peripheral tagmemes are permuted to a position between the pronoun and any consequent tagmeme. 5 (2) If a noun phrase or demonstrative is adjacent to the Predicate these peripheral tagmemes are permuted to a position between the Predicate and the noun phrase. (In any instance the noun phrase would be a manifestation of Subject, and the demonstrative a manifestation of Subject in dual function with Topic.)

Permutation 4 (obligatory)

\[ P + X + Y (+\text{AcS}) (+\text{Em}) (+\text{Qu}) (+\text{Neg}) (+Z) \Rightarrow P + X (+\text{AcS}) (+\text{Em}) (+\text{Qu}) (+\text{Neg}) + Y (+Z) \]

Where \( X \) is any tagmeme manifested by a pronoun, and \( Y \) and \( Z \) are any other tagmemes.

5 Some examples which apparently appear as exceptions to this permutation rule are the result of lower level permutations dependent upon a particular pronominal choice. Since the choice of a particular pronominal form is not made at this level, there is no motivation for supplying at this point the required permutation to account for the forms even though clause level tagmemes are also involved. e.g., Permutation 4 produces the following clause chitahen da paava sira. "They are still not looking for them." If however instead of sira the alternate 3rd person plural pronoun is chosen, the clause will be permuted as follows, chitahen da pa saava. "They are still not looking for them."
Permutation 5 (obligatory)

\[ P + (T/)S (+Y) (+AcS) (+Em) (+Qu) (+Neg) (+Z) \Rightarrow P \]
\[ (+AcS)(+Em)(+Qu)(+Neg) + (T/)S (+Y) (+Z) \]

Where \((T/)S\):N, dem; and \(Y\) and \(Z\) are any other tagmemes.

Example (a)

Reading of VCl of

\[ Pvl_{-en} + S + T/O + AcS + Neg \]

Exponence

\[ Pvl_{-en} : vl_{-en} \]
\[ S : Pr_s \]
\[ T/O : Pr_t \]
\[ AcS : pa \]
\[ Neg : gava \]

Obligatory Permutation

\[ (P + S + AcS + Neg + T) vl_{-en} + Pr_s + pa + gava + Pr_t \]

chitachitahen da paava sira
of-look for S/they still-not T/their

"They are still not looking for them."

Example (b)

Reading of VCl of

\[ Pvl_{-en} + S + T/O + AcS + Neg \]

Exponence

\[ Pvl_{-en} : vl_{-en} \]
\[ S : N_s \]
\[ T/O : N_t \]
\[ AcS : pa \]
\[ Neg : gava \]
Obligatory Permutation

\[(P + AcS + \text{Neg} + S + T) \quad v_{1-en} + p_{a} + g_{ava} + N_{s} + N_{t}\]

"The man is still not looking for his friend."

**Example (c)**

Reading of VC2 of

\[Pc_{2pa--en} + S + T/O + Em + Neg\]

Exponence

\[Pc_{2pa--en} : vc_{2pa--en}\]

S : N_{s}
T/O : Pr_{t}
Em : sawen
Neg : gava

**Example (d)**

Reading of NC2

\[Pn_{2} + T/S + Neg\]

Exponence

\[Pn_{2} : N_{\text{class}}\]
T/S : dem_{1}
Neg : gava

Obligatory Permutation

\[(P + \text{Neg} + T/S) \quad N_{\text{class}} + g_{ava} + \text{dem}_{1}\]

"This is not my dog."
Obligatory Permutation (3)

1. (P + T + S + Em + Neg)

Obligatory Permutation (4)

2. (P + T + Em + Neg + S) \( v_c^2 \text{pa--en} + Pr_t + \text{sawen} + \text{gava} + N_s \)

\text{pakaro} \text{hen} \quad \text{kamo} \quad \text{sawen} \quad \text{gava} \quad \text{no} \quad \text{tao}

of-depart \quad T/you\ pl. \quad surely \quad neg. \quad S \quad man

"The man will surely not send you away."

Permutation of Manner Tagmeme.

The position of Manner Tagmeme has not been checked with an informant. Texts indicate that it always occurs as the final tagmeme of a clause, but this may be because examples are rare in the texts where freely permutable tagmemes (i.e., Location and Temporal) occur in the same clause with Manner.
5.0 All clause level nuclear tagmemes (other than Predicate), as well as Location, Temporal and Manner of the Peripheral tagmemes, have as one of their exponents a Relator-Axis phrase. Relator is the function of a series of particles which not only indicates the relation of the following Axis to the Clause (i.e., the Axis function) but also supplies semantic markers to the exponent of the Head slot of the Axis. The Axis is manifested by a noun (or a pronoun) which simultaneously functions as Head slot to a series of embedded phrase level constructions. A possible alternate analysis would consider the embedded constructions which manifest the Axis tagmeme as comprising an extra grammatical level between the word level and the level in which the Relator-Axis syntagmemes occur.¹

5.1 Relator-Axis Constructions. Two types of Relator-Axis constructions occur in Ivatan. One, indicated by the symbol N in exponents of clause level tagmemes, has a noun

¹See Reid, Formal Analysis of Central Bontoc, Chapters III and IV, in which Bontoc Relator-Axis constructions are described as constituting a "Hyper-phrase" level, and the phrase construction exponents of the Axis are described as constituting the phrase level.
as the exponent of the Axis Head. The other, indicated by Pr in exponents of clause level tagmemes, has both Relator and Axis occurring in dual function (except Pr₁₀ where an optional additional Relator precedes the dual function tagmeme). The exponent of the Rel/Axis Head is a pronoun.

In the following formal statement, semantic concord between tagmemes in a string is indicated by identical Greek letters. \(+X\alpha+Y\alpha\) indicates that tagmemes X and Y must have concordant semantic components. This statement is merely an acknowledgement that the choice of a particular noun exponent is related to the choice of the relation marker preceding the noun. The restrictions would need to be formalized in the manner of Chomsky's strict subcategorization rules and selectional rules. He states:

Among the context-sensitive subcategorization rules we have furthermore distinguished two important subtypes, namely strict subcategorization rules . . . which subcategorize a lexical category in terms of the frame of category symbols in which it appears, and selectional rules . . . which subcategorize a lexical category in terms of syntactic features that appear in specified positions in the sentence.²

Analysis of Ivatan has not proceeded to the point where these two types of subcategorization rules can be formalized or tied into the tagmemic theoretical framework; however, general statements will be made below in relation

to the semantic components indicated by each exponent of
Relator tagmeme.

Formal Statement.

\[ N \rightarrow + \text{Rel}_\alpha + \text{Axis}_\alpha \]

\[ \text{Pr} \rightarrow + \text{Rel}/\text{Axis} \]

\[ \text{Pr}_{10} \rightarrow (+\text{Rel}_{10}) + \text{Rel}_{10}/\text{Axis} \]

Subscripts attached to the construction name when
clause level tagmemes are expounded, specify the emic sub­
class of markers which expound the Relator tagmeme. Thus
any tagmeme in multiple function with Topic receives a
subscript \( t \) to the manifesting construction name. The
subscript \( t \) indicates that only the Topic subclass of
markers may manifest the Relator tagmeme. It is necessary,
therefore, when performing the second stage of the exponence
operation (substitution of a construction for a label), to
transfer the label subscript to the Relator tagmeme. For
example, the noun phrase exponent (Stage 1) of T/S tagmeme
is \( N_t \). The construction substitution of \( N_t \) (Exponence
Stage 2) would be \(+\text{Rel}_t\alpha + \text{Axis}_\alpha\).

The subscripts on Pr serve to determine not only the
emic subclass of Relator exponent (and thus of pronoun
since they are in portmanteau function) but also the presence
or absence of the optional non-portmanteau Relator. The
latter Relator may only occur as optionally readable if the
construction label has a locative subscript \( \text{Pr}_{10} \). Rel_{10}
preceding Rel/Axis may only be manifested by that member of the locative subclass of relation markers which indicates that the following Head word is nonpersonal. Thus \textit{diaken} as an exponent of $\text{Rel/Axis}_{lo}$ may mean "on me, with me," etc., whereas \textit{do diaken} as exponents of $+\text{Rel}_{lo}$ $+\text{Rel}_{lo}/\text{Axis}$ means "at, in my place," etc.

\textbf{Relator-Axis Exponents.}

1. Rel:rm\textsubscript{t,s,o,o',a,r,lo,te,m}
2. Axis : emN
3. Rel/Axis : emPr

The relation markers are presented below in Chart 2 by a tree diagram designed to illustrate the semantic components of the various forms. There are three major semantic components indicated by relation markers: common versus proper, singular versus plural, and living versus deceased. The latter two pairs of components apply only to relation markers having a minus common feature.

\begin{center}
\textbf{Chart 2. Semantic Components of Relation Markers}
\end{center}

\begin{center}
\begin{tikzpicture}
\begin{scope}[every node/.style={draw,rectangle,minimum size=1cm}]
\node (root) {+common
\textsubscript{go,so,no,do}} child{node{+sing.
\textsubscript{si,ni,di}} child{node{-alive
\textsubscript{si}} child{node{-alive
\textsubscript{ni}}} child{node{-alive
\textsubscript{di}}}} child{node{-alive
\textsubscript{sa,da}} child{node{-alive
\textsubscript{sa}}} child{node{-alive
\textsubscript{da}}}}};
\end{scope}
\end{tikzpicture}
\end{center}
The relation marker *do* indicating Referent, Location or Temporal tagmemes, has an extra semantic component when marking a Time tagmeme whose Axis is a Temporal word (not a Temporal clause). There is then a contrast between *do* which has the feature plus past, and *gan* which has the feature minus past.

Chart 3 presents the Relation Markers as a series of overlapping emic subclasses. Where there seems to be lack of contrast, as between Subject and Associative, tagmemic contrast has been established by other criteria, for example contrasting pronoun substitution, or Axis exponence.

<table>
<thead>
<tr>
<th>Chart 3. Relation Marker Subclasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>Living</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>1. t</td>
</tr>
<tr>
<td>2. o'</td>
</tr>
<tr>
<td>3. o,m</td>
</tr>
<tr>
<td>4. s,a</td>
</tr>
<tr>
<td>5. r,lo</td>
</tr>
<tr>
<td>6. te</td>
</tr>
</tbody>
</table>
Examples:

minodi si Juan
sf-go home T Juan

"Juan went home."

minodi sa Juan

"Juan (and his companion) went home."

minodi simna Juan

"The late Juan went home."

tawagan ni Juan go raray na
call-rf S Juan T companion his

"Juan is calling his companion."

tawagan da Juan go raray da

"Juan (and his companions) are calling their friend."

minodi kami di Juan
sf-go home T/we excl. L Juan

"We went home to Juan's place."

minodi kami da Juan

"We went home to Juan's family's place."

minodi kami dimna Juan

"We went home to the late Juan's place."

It should be noted that the plural relation markers, sa and da, are homophonous with 3rd person plural pronoun forms which are used to mark plurality of common noun phrases by apposition. For example:

tawagan da no tao go raray da
call-rf S/they S man T companion their
"The men are calling their companions."

\[ \text{minodi} \quad \text{sa} \quad \text{go} \quad \text{tao} \]
\[ \text{sf-go home} \quad \text{T\ they} \quad \text{T\ man} \]

"The men went home."

The combinations \textit{da} plus \textit{no}, and \textit{sa} plus \textit{go} do not allow a componential breakdown of the common component in Charts 2 and 3, since in these combinations \textit{da} and \textit{sa} function as pronouns and can be expanded with normal pronoun phrase expansions (e.g., with a demonstrative) before the common noun phrase in apposition with the pronoun. The markers \textit{sa} and \textit{da} preceding proper noun phrases cannot be expanded in this manner and are therefore treated as plural markers rather than pronouns. For example:

\[ \text{minodi} \quad \text{sa} \quad \text{aya} \quad \text{go} \quad \text{tao} \]
\[ \text{sf-go home} \quad \text{T\ they} \quad \text{T\ this} \quad \text{T\ man} \]

"These men went home."

5.2 Embedded Phrases. The constructions represented by the exponential symbols of \textit{Axis} and \textit{Rel/Axis} above are as follows:

\[ \text{emN} \rightarrow H_n \quad (+p1) \quad (+Po) \quad (+At)^2 \quad (+Co) \]
\[ \text{emPr} \rightarrow H_{pr} \quad (+At) \quad (+Ap) \quad (+Co) \]

The \textit{Attributive} tagmeme may occur twice at the same level of embedding, providing the first of the two \textit{Attributive} phrases is a demonstrative \textit{Attributive}. Other apparent instances of multiple occurrence of one or more
of the above tagmemes are actually examples of phrase embedding. Such recursiveness is accounted for in the description since Possessor (Po), Attribute (At), Coordinate (Co) and Appositive (Ap) phrases are all Relator-Axis phrase structures, with each Axis having the same potential manifestation as in the above formulae. The sequence of Apposition and Coordination in an embedded pronoun phrase has not been found in texts. It is assumed such a sequence could be elicited.

5.21 Embedded Phrase Exponents. \( H_n \) is expounded by a series of noun subclasses which place restraints on the allowable sequence of optional tagmemes in the string. Possessor (Po), for example, may occur only after the choice of a common noun as exponent of the Head.

\( H_{pr} \) is expounded by a series of pronoun subclasses determined by the subscript carried over from the function label as described above for relation markers. Each pronoun set is an emic subclass of the total Rel/Axis pronoun exponence.

1. \( H_n : n_{cn}, n_p, n_{num1}, n_{num2}, n_{meas} \ldots \)

2. \( H_{pr} : pr_t, pr_s, pr_o, pr_a, pr_r, pr_{lo} \)

Chart 4 lists the pronoun subclasses. The relational component is given along the top of the chart, person and plurality along the side.
Chart 4. Pronoun Subclasses.

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 sing.</td>
<td>ko</td>
<td>gakó</td>
<td>yaken</td>
<td>niaken</td>
<td>diaken</td>
<td></td>
</tr>
<tr>
<td>2 sing.</td>
<td>mo</td>
<td>ka</td>
<td>gimo</td>
<td>nimo</td>
<td>dimo</td>
<td></td>
</tr>
<tr>
<td>3 sing.</td>
<td>na</td>
<td>sia~φ</td>
<td>sia</td>
<td>nia</td>
<td>dia</td>
<td></td>
</tr>
<tr>
<td>1 pl. incl.</td>
<td>ta</td>
<td>ta</td>
<td>yaten</td>
<td>niaten</td>
<td>diaten</td>
<td></td>
</tr>
<tr>
<td>1 pl. excl.</td>
<td>namen</td>
<td>kami</td>
<td>yamen</td>
<td>niamen</td>
<td>diamen</td>
<td></td>
</tr>
<tr>
<td>2 pl.</td>
<td>nio</td>
<td>kamo</td>
<td>ginio</td>
<td>ninio</td>
<td>dinio</td>
<td></td>
</tr>
<tr>
<td>3 pl.</td>
<td>da</td>
<td>sirā~sa</td>
<td>sirā~sa</td>
<td>nira</td>
<td>dira</td>
<td></td>
</tr>
</tbody>
</table>

A sequence of Object prime and Referent lo tagmemes, in which the former is manifested by a 3rd person singular pronoun dia and the latter by the homophonous locative demonstrative dia "here", requires the use of the topic form sia in place of the first occurrence of dia. Thus

\[ \text{dia} \rightarrow \text{sia} // \text{~} + \text{dia} \]

Example:
"He is frightening it here."

But note the retention of the di pronoun series where in (1) Topic/Referent is a common noun phrase, and in (2) Object prime is not the 3rd person singular pronoun.

(1) qamqmoana frighten-rfl-S/he dia go vahay dia T/house

"He is frightening it in the house."

(2) qamqmoana frighten-rfl'-S/he diaken dia O/l/me T/here

"He is frightening me here."

**Pluralizer**

The pluralizing tagmeme in the embedded phrase formula is expounded by a single morpheme sa "plural".

3. pl : sa

**Possessor**

The Possessor tagmeme (Po) may occur in any embedded noun phrase in which the Head slot is manifested by the noun subclass marked common \( (n_{cn}) \). It has a Relator-Axis structure, the Relator and Axis being either in dual function (if expounded by a possessive pronoun) or in a string (if expounded by a Possessor noun phrase).

4. Po : \( N_{po}, Pr_{po}, dem_2 \)
   \( N_{po} \rightarrow Rel_{po} \alpha + Axis \alpha \)
   \( Pr_{po} \rightarrow Rel_{po}/Axis \)
Possession relation markers are the same as those that mark non-topic Subject and Associative and are listed in Chart 3 (row 4).

\[ \text{Rel}_{po} : \text{rm}_{po} \]

The exponent of the Axis of \( N_{po} \) is an embedded noun phrase (\( \text{emN} \)), the structure of which is given above at the beginning of section 5.2.

The exponent of \( \text{Rel}_{po}/\text{Axis} \) is an embedded pronoun phrase, but necessarily subscripted as possessor since the manifesting pronoun, besides being the Head of the embedded phrase, marks the possession relation to the Head of the embedding phrase.

\[ \text{Rel}_{po}/\text{Axis} : \text{emPr}_{po} \]
\[ \text{emPr}_{po} \rightarrow \text{Hpr}_{po} (+\text{Ap}) (+\text{Co}) \]
\[ \text{Hpr}_{po} : \text{pr}_{po} \]

The possessive pronoun series is equivalent to the non-topic Subject pronouns given in the first column of Chart 3.

In the following examples, the possessor phrase occurs as part of an embedded noun phrase manifesting the Axis of a clause level Topic tagmeme.

Parentheses in the literal translation indicate layers of embedding.

\[ (T : N \rightarrow \text{Rel}_t + \text{Axis}_t : \text{emN} \rightarrow H_n + . . . ) \]
Example 1 (Single embedding with Possessor noun phrase)

\[(\text{Po} : \text{N}_p \rightarrow \text{Rel}_{p_\alpha} + \text{Axis}_\alpha : \text{emN} \rightarrow \text{H}_n : n)\]

(a) \(\text{go chito no tao} \quad \text{"the dog of the man"} \)

(b) \(\text{go chito ni Juan} \quad \text{"Juan's dog"} \)

(c) \(\text{go chito da Juan} \quad \text{"Juan's family's dog"} \)

Example 2 (Single embedding with Possessor pronoun)

\[(\text{Po} : \text{Pr}_{p_\alpha} \rightarrow \text{Rel}_{p_\alpha/\text{Axis}} : \text{emPr}_{p_\alpha} \rightarrow \text{H}_{p_\alpha} : \text{Pr}_{p_\alpha})\]

(a) \(\text{go chito ko} \quad \text{"my dog"} \)

(b) \(\text{go chito da} \quad \text{"their dog"} \)

Example 3 (Double embedding of Possessor phrases)

\[(\text{Po} : \text{N}_p \rightarrow \text{Rel}_{p_\alpha} + \text{Axis}_\alpha : \text{emN} \rightarrow \text{H}_n + \text{Po} : \text{Pr}_{p_\alpha} \rightarrow \text{Rel}_{p_\alpha/\text{Axis}} : \text{emPr}_{p_\alpha} \rightarrow \text{H}_{p_\alpha} : \text{Pr}_{p_\alpha})\]

\(\text{go chito no kavyana} \quad \text{"his friend's dog"} \)

Example 4 (Triple embedding of Possessor phrases)

\[(\text{Po} : \text{N}_p \rightarrow \text{Rel}_{p_\alpha} + \text{Axis}_\alpha : \text{emN} \rightarrow \text{H}_n + \text{Po} : \text{N}_p \rightarrow \text{Rel}_{p_\alpha} + \text{Axis}_\alpha : \text{emN} \rightarrow \text{H}_n + \text{Po} : \text{Pr}_{p_\alpha} \rightarrow \text{Rel}_{p_\alpha/\text{Axis}} : \text{emPr}_{p_\alpha} \rightarrow \text{H}_{p_\alpha} : \text{Pr}_{p_\alpha})\]

\(\text{go chito no kavyana no qama nio} \quad \text{"the dog of your father's friend"} \)
A permutation rule applies when Possessor is expounded by an embedded pronoun phrase and is preceded by a pluralizing tagmeme. The possessive pronoun obligatorily precedes the pluralizer.

**Permutation Rule.**

\[ sa + emPr_{po} \Rightarrow emPr_{po} + sa \]

**Example**

\[ \text{tax} \quad \text{chito} \quad \text{na} \quad sa \quad \text{"his dogs"} \]

This rule will be stated after the description of the Appositional phrase type.

**Attributive.**

There are eight types of Attributive phrase in Ivatan. All may be considered to be Relator-Axis in structure.

The most frequently occurring type is the demonstrative Attributive \((At_{\text{dem}})\) which is characterized by a two member class of demonstrative pronouns \((\text{dem}_1)\) manifesting the Axis. It is further characterized by the non-occurrence of embedded phrases following the demonstrative.

Attributive phrases may not follow a Possessive phrase expounded by \(N_{po}\). An Attributive apparently in this position is actually embedded in the Possessive phrase and is not Attributive to the Head of the Axis.
5(a). \[ \text{At}_{\text{dem}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{dem}} \]

\[ \text{Rel}_{\text{at}} : \text{rm}_{\text{at}} \]

\[ \text{Axis}_{\text{dem}} : \text{dem}_1 \]

\[ \text{rm}_{\text{at}} \rightarrow \text{qa} // \text{ya} + \text{Axis}_{\text{dem}} \]

\[ \text{dem}_1 \rightarrow \text{ya}, \text{qori} \]

The sequence \text{qa ya} "this" and \text{qa qori} "that" are frequently reduced by optional morphophonemic rules to \text{qaw} and \text{qaw} respectively. Further optional rules reduce the forms to \text{-y} and \text{-w} respectively following morphemes with a final \text{-a}.

The following examples are based on this sequence of phrase reading and exponence operations:

\[ T : N \rightarrow \text{Rel}_{\alpha} + \text{Axis}_{\alpha} : \text{emN} \rightarrow \text{H}_n + \ldots \]

\underline{Example 1} (Simple embedding of Attributive phrase)

\[ (\text{At}_{\text{dem}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{dem}} : \text{dem}_1) \]

(a) \[ \text{rm}_t \text{chito gaya} \]

"this dog"

(b) \[ \text{rm}_t \text{chito gawri} \]

"that dog"

\underline{Example 2} (Simple embedding of Attributive phrase following a Possessor pronoun phrase)

\[ (\text{Po} : \text{Pr}_{\text{po}} + \text{At}_{\text{dem}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{dem}} : \text{dem}_1) \]

(a) \[ \text{rm}_t \text{chito na gaya} \]

"this dog of his"
Example 3 (Simple embedding of Attributive phrase following permuted plural and Possessor pronoun phrase)

\[
(pl + Po : Pr_po + At_{dem} \rightarrow Rel_{at} + Axis_{dem} : dem_1)
\]

\[
\text{go } \text{chito } \text{na } \text{tay } \text{dog } \text{(his)} \text{ pl-} (rm_{at-} \text{this})
\]

"those dogs of his"

Example 4 (Embedding of Attributive phrase within a Possessor noun phrase)

\[
(Po : N_{po} \rightarrow Rel_{po} \times + Axis_\times : emN \rightarrow H_n + At_{dem} \rightarrow Rel_{at} + Axis_{dem} : dem_1)
\]

\[
\text{go } \text{chito } \text{no } \text{tay } \text{gawa } \text{dog } \text{(rm}_{po} \text{man (rm}_{at-} \text{this})}
\]

"the dog of this man"

Example 5 (Embedding of Attributive phrase within a doubly embedded Possessor noun phrase)

\[
(Po : N_{po} \rightarrow Rel_{po} \times + Axis_\times : emN \rightarrow H_n + Po : N_{po} \rightarrow Rel_{po} \times + Axis_\times : emN \rightarrow H_n + At_{dem} \rightarrow Rel_{at} + Axis_{dem} : dem_1)
\]

\[
\text{go } \text{chito } \text{no } \text{kayvan } \text{no } \text{tay } \text{gawri } \text{dog } \text{(rm}_{po} \text{friend (rm}_{po} \text{man (rm}_{at-} \text{that)})}
\]

"the dog of that man's friend"

A demonstrative Attributive phrase to the Head of an Axis may occur even though a Possessor noun phrase is at the same level of embedding (meaning, for example, "this
dog of my father") if the Possessor noun phrase is occurring in apposition to a Possessor pronoun phrase. For examples see the description of Appositional phrases below.

A qualifying Attributive embedded phrase (At_q) has the same relation marker as the demonstrative Attributive, but the Axis may be manifested by the same sequence of forms as manifest a non-embedded Axis, i.e., the nominal Head may be followed by plural, Possessor, Attributive and Coordinate tagmemes. If the exponent of the Head is a proper noun, it must be preceded by si, except where the Head of the phrase to which it is attributive is also proper, in which case si is optional. Occurring as a relation marker at the phrase level, si indicates Topic or Object prime (see above p. 93). In an embedded phrase, however, si only marks the following noun as proper rather than common.

5(b) \[At_q \rightarrow \text{Rel}_{at} + \text{Axis}_q\]

\[\text{Axis}_q : \text{emN}_q\]

\[\text{emN}_q \rightarrow H_q (+pl) (+Po) (+At)^2 (+Co)\]

\[
H_q : \begin{cases} 
\text{si} + np & /H:nc + x + \text{Rel}_{at} + \_
\end{cases}
\]

Where \(x = (+pl) (+Po) (+At_{dem})\)}
The three exponents of $H_q$ are not ordered. The exponent $n$ (representing allowable noun subclasses other than proper) may also occur in the environments listed for the first two $H_q$ exponents.

Restraints on noun subclass manifestation of the Head of a qualifying Attributive embedded phrase depend on the manifestation of the Head of the Axis within which the Attributive is embedded. These restrictions have not been determined but are probably grammatical (i.e., restrictions on co-occurring subclasses) as well as lexical (i.e., collocational). This type of Attributive may not be embedded in an Axis with a numeral manifesting the Head.

The following examples are based on the sequence of phrase reading and exponence operations:

$$T : N \rightarrow \text{Rel}_{t}^{\alpha} + \text{Axis}_{\alpha} : \text{emN} \rightarrow H_n + . . .$$

**Example 1** (Simple embedding of a qualifying Attributive noun)

$$(\text{At}_{q} \rightarrow \text{Rel}_{at} + \text{Axis}_{q} : \text{emN}_{q} \rightarrow H_{q} : n_{c})$$

$$\frac{\text{go}}{\text{rm}_{t}} \text{rakoh} \quad \frac{\text{ga}}{\text{rm}_{at}} \text{chito} \quad \text{dog}$$

"the big dog"

**Example 2** (Simple embedding of a qualifying Attributive phrase)

$$(\text{At}_{q} \rightarrow \text{Rel}_{at} + \text{Axis}_{q} : \text{emN}_{q} \rightarrow H_{q} + p_{l} + P_{o} + \text{At}_{\text{dem}_{c}})$$

$$\frac{\text{go}}{\text{rm}_{t}} \text{rakoh} \quad \frac{\text{ga}}{\text{rm}_{at}} \text{chito} \quad \text{na} \quad \frac{\text{sa}}{\text{pl}} \frac{\text{gaya}}{(\text{rm}_{at}=\text{this})}$$

"those big dogs of his"
Example 3 (Simple embedding of a qualifying Attributive phrase following permuted plural and Possessor pronoun phrase)

\[(pl + Po : Pr_{po} + At_{q} \rightarrow Rel_{at} + Axis_{q} : emN_{q} \rightarrow H_{q} : n)\]

\[\frac{go \cdot chito \cdot na}{rm_t \cdot dog \cdot (his)} \frac{sa \cdot qa \cdot rakoh}{pl \cdot (rm_at \cdot big)} \text{"his big dogs"}\]

Example 4 (Simple embedding of a qualifying Attributive phrase with proper noun exponence)

\[(At_{q} \rightarrow Rel_{at} + Axis_{q} : emN_{q} \rightarrow H_{q} : n_{p})\]

\[\frac{si \cdot hakay \cdot qa \cdot Mariano}{rm_t \cdot Old Man (rm_at \cdot Mariano)} \text{"Old Man, Mariano"}\]

Example 5 (Double embedding of a qualifying Attributive phrase with proper noun exponence)

\[(Po : Pr_{po} + At_{q} \rightarrow Rel_{at} + Axis_{q} : emN_{q} \rightarrow H_{q} : n_{c} + At_{q} \rightarrow Rel_{at} + Axis_{q} : emN_{q} \rightarrow H_{q} : si + n_{p})\]

\[\frac{go \cdot ganak \cdot na \cdot qa \cdot mavakes \cdot qa \cdot si \cdot Maria}{rm_t \cdot child (his) (rm_at \cdot girl (rm_at \cdot si \cdot Mary))} \text{"his daughter, Mary"}\]

Example 6 (Embedding of a qualifying Attributive phrase with proper noun exponence within a Possessor phrase)

\[(Po : N_{po} \rightarrow Rel_{po} \rightarrow Axis_{q} : emN \rightarrow H_{n} + At_{q} \rightarrow Rel_{at} + Axis_{q} : emN_{q} \rightarrow H_{q} : si + n_{p})\]
\[
\frac{\text{go}}{\text{rm}_t} \text{vata} \frac{\text{ni}}{\text{rm}_p} \text{qina} \frac{\text{si}}{\text{Ana}} \text{Mother (Si Ana)})
\]

"the statement of mother, Ana"

Note that following qina the relation marker qa has been deleted.

The measure Attributive embedded phrase \((A_{\text{meas}})\) is attributive only to a preceding numeral of Class 1 \((n_{\text{num1}})\). The embedded relator is the same as for the preceding two phrase types; the Axis however is restricted to nouns of measurement. Restrictions exist on the types of phrase which may be embedded within the Axis of a measure Attributive phrase. These restrictions have not been fully determined. (A further Attributive phrase of the same type, for example, may not follow since the embedded Axis is not manifested by a numeral. Neither may an Attributive having a numeral as its Axis be embedded within this phrase type.)

5(c) \(A_{\text{meas}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{meas}} / H : n_{\text{num1}} (+\text{Po})(+A_{\text{dem}}) + H_{\text{num1}}^3\)

\[\text{Axis}_{\text{meas}} : \text{emN}_{\text{meas}}\]

\[\text{emN}_{\text{meas}} \rightarrow H_{n_{\text{meas}}} (+\text{Po})(+A_{\text{dem}})^2(+\text{Co})\]

\[H_{n_{\text{meas}}} : n_{\text{meas}}\]

---

3Examples have not been found of a pluralizing tagmeme occurring between a Head manifested by a numeral and a measure Attributive Phrase.
Class 1 numerals include the following forms:

- qása  "one"
- díma  "five"
- rua    "two"
- qánem "six"
- tatdo "three"
- pito   "seven"
- qápat "four"
- waho  "eight"

Class 2 numerals (listed below) may substitute for the Class 1 numerals in some contexts. The conditioning factors have not yet been determined. The informant rejected some measurement phrases above the number eight, substituting a count attributive phrase using Class 2 numerals for some measurement Attributive phrases tested with siam, the expected Class 1 form for the number nine.

Following forms ending in vowels, the Attributive relation marker qa is commonly deleted by a regular morphophonemic rule.

Nouns included in the measurement subclass include:

- kamay  "finger width"
- gadpa  "fathom"
- bedbed "bundle of rice"
- poho   "ten"
- rangan "span"
- yatos  "hundred"

The following examples are based on the same phrase reading and exponence operations as stated for preceding examples of embedded phrases.

**Example** (Simple embedding of measurement Attributive phrase)

\[
(\text{At}_{\text{meas}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{meas}} : \text{emN}_{\text{meas}} \rightarrow H_{n_{\text{meas}}} : n_{\text{meas}})
\]
A count Attributive embedded phrase \((\text{At}_{\text{count}})\) is attributive only to a preceding numeral of class 2 \((n_{\text{num2}})\). The relator is the same as for other Attributive phrases \((qa)\), but the Head of the embedded noun phrase exponent of a count Axis is preceded by an obligatory counter \((C)\).

Further embedding by Possessor, Attributive and Coordinate phrases may follow the Head of the embedded count noun phrase.

\[
\text{5(d)} \quad \text{At}_{\text{count}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{count}} / H_{n_{\text{num2}}} (+\text{Po})(+\text{At}_{\text{dem}}) + \]

\[
\text{Axis}_{\text{count}} : \text{emN}_{\text{count}}
\]

\[
\text{emN}_{\text{count}} \rightarrow C + H_{n_{\text{count}}} (+\text{Po})(+\text{At})^2 (+\text{Co})
\]

\[
C : \text{ka}
\]

\[
H_{n_{\text{count}}} : n_{\text{count}}
\]

Class 2 numerals have the following forms:

\[
\begin{align*}
gása & \quad "\text{one}" & \quad \text{gánem} & \quad "\text{six}"
\end{align*}
\]

\[
\begin{align*}
dadoa & \quad "\text{two}" & \quad \text{papito} & \quad "\text{seven}" 
\end{align*}
\]
Structurally, Class 2 numerals may be considered to have the following form: Counter + numeral nucleus, where Counter is expounded by consonant\textsubscript{l} + a- reduplication; and the numeral nucleus is expounded by Class 1 numeral stems. Numerals beginning with stressed vowels may be reinterpreted as geminate clusters following the morphophonemic loss of the vowel medial glottal stop: e.g.,

consonant\textsubscript{l} + a- + qasa \rightarrow qa-qasa \rightarrow qaasa

This interpretation, although perhaps having historical validity, does not account for the fact that Class 1 numerals which begin with qa- also have length on the initial vowels, and the numeral "three" never has an unreduplicated form. It seems better therefore to consider reduplication as non-productive and interpret the long vowels not as geminate clusters, but as stressed vowels.

The subclass of nouns marked as count excludes proper nouns, which may be included in a mass noun subclass. Class overlap occurs with expected semantic variation. This is illustrated in the following examples, in which kamay as a member of the count noun subclass means "finger", whereas as a member of the measurement noun subclass kamay means "finger-width" (see examples on p. 109).
A characteristic of some (but not all) count nouns is their potential pluralization with a CV- (consonant-vowel) prefix reduplication. This may be noted in the following examples where kamay occurs after the numeral "one", but kakamay occurs after other numerals.

Some stems occur in both the measurement subclass and the count subclass, without apparent change of meaning and without plural reduplication. Such stems include: qadpa "fathom", rangan "span", and bedbed "bundle of rice".

**Example 1 (Simple embedding of a count Attributive phrase)**

\[
\begin{align*}
&(\text{At}_{\text{count}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{count}} : \text{emN}_{\text{count}} \rightarrow C + H_{n_{\text{count}}}) \\
&(a) \quad \text{go} \quad \text{gása} \quad \text{ka} \quad \text{kamay} \quad \text{"one finger"} \\
&\quad \underbrace{\text{rm}_t} \text{one} \quad \underbrace{(C \text{ finger})} \\
&(b) \quad \text{go} \quad \text{dadoa} \quad \text{ka} \quad \text{kakamay} \quad \text{"two fingers"} \\
&\quad \underbrace{\text{rm}_t} \text{two} \quad \underbrace{(C \text{ pl-finger})} \\
&(c) \quad \text{go} \quad \text{gápat} \quad \text{ga} \quad \text{ka} \quad \text{kakamay} \quad \text{"four fingers"} \\
&\quad \underbrace{\text{rm}_t} \text{four} \quad \underbrace{(\text{rm}_t \text{ pl-finger})} \\
&(d) \quad \text{go} \quad \text{gánem} \quad \text{ga} \quad \text{ka} \quad \text{kakamay} \quad \text{"six fingers"} \\
&\quad \underbrace{\text{rm}_t} \text{six} \quad \underbrace{(\text{rm}_t \text{ pl-finger})} \\
&(e) \quad \text{go} \quad \text{papito} \quad \text{ka} \quad \text{kakamay} \quad \text{"seven fingers"} \\
&\quad \underbrace{\text{rm}_t} \text{seven} \quad \underbrace{(C \text{ pl-finger})}
\end{align*}
\]

Compare the following examples, in which the first of the pair shows an embedded measure Attributive phrase and the second shows an embedded count Attributive phrase. The pairs illustrate overlapping noun subclasses (count and measure) without apparent semantic change.
(a) 1. \( \text{go gápat qaadpa} \) \( \text{four fathoms} \)
    \( \text{rm} \) \( \text{four} \) \( \text{(rm}_{\text{at}} \text{-fathom)} \)
    2. \( \text{go gápat qa kaadpa} \) \( \text{four fathoms} \)
    \( \text{rm}_{\text{t}} \) \( \text{four} \) \( \text{(rm}_{\text{at}} \text{-fathom)} \)

(b) 1. \( \text{go gánem qa rangan} \) \( \text{six spans} \)
    \( \text{rm}_{\text{t}} \) \( \text{six} \) \( \text{(rm}_{\text{at}} \text{span)} \)
    2. \( \text{go gánem qa ka rangan} \) \( \text{six spans} \)
    \( \text{rm}_{\text{t}} \) \( \text{six} \) \( \text{(rm}_{\text{at}} \text{span)} \)

(c) 1. \( \text{go pito bedbed} \) \( \text{seven bundles of rice} \)
    \( \text{rm}_{\text{t}} \) \( \text{seven} \) \( \text{(rm}_{\text{at}} \text{bundles of rice)} \)
    2. \( \text{go papito ka bedbed} \) \( \text{seven bundles of rice} \)
    \( \text{rm}_{\text{t}} \) \( \text{seven} \) \( \text{(rm}_{\text{at}} \text{bundles of rice)} \)

Example 2. (Simple embedding of a count Attributive phrase following Possessor and demonstrative Attributive phrases)

\[
\text{(Po : Pr}_{\text{po}} + \text{At}_{\text{dem}} + \text{At}_{\text{count}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{count}} : \\
\text{emN}_{\text{count}} \rightarrow C + H_{\text{count}})}
\]

\( \text{go tatdo naaya ka chito} \)
\( \text{rm}_{\text{t}} \) \( \text{three (his)-(rm}_{\text{at}} \text{-this)} \) \( \text{(C dog)} \)

"these three dogs of his"

A partitive Attributive embedded phrase (\( \text{At}_{\text{part}} \)) is similar in structure to the count Attributive embedded phrase in that the Head of the embedded Axis is restricted to count noun exponent, and the Head of the embedding Axis is restricted to Class 2 numerals. It is distinguished from a count Attributive phrase by the absence of the Counter tagmeme and by the exponent of the Relator. The partitive relation marker is \( \text{do} \). A further distinguishing feature between count and partitive Attributive phrases
is that a count Attributive may participate in a transform
to a qualifying Attributive phrase, whereas an embedded
partitive phrase may not. For example:

(a) \( \frac{\text{dadoa}}{\text{two}} \frac{\text{ka}}{\text{(C man)}} \text{ tao} \) "two men"

(b) \( \frac{\text{tao}}{\text{man}} \frac{\text{qa}}{\text{(rm \_at two)}} \text{ dadoa} \) "two men"

(c) \( \frac{\text{dadoa}}{\text{two \_part \( \text{do} \) man}} \text{ tao} \) "two of the men"

One further distinguishing feature may be noted. A
partitive Attributive phrase may be expounded by a dual
function Relator/Axis, the head of which is a pronoun.

\[
5(e) \quad \text{At}_{\text{part}} \rightarrow \begin{cases} 
\text{Rel}_{\text{part}} + \text{Axis}_{\text{part}} \\
\text{Rel}_{\text{part}}/\text{Axis} 
\end{cases} / H : n_{\text{num2}} +
\]

\( \text{Rel}_{\text{part}} : \text{do} \)

\( \text{Rel}_{\text{part}}/\text{Axis} : \text{emPr}_{\text{part}} \)

\( \text{Axis}_{\text{part}} : \text{emN}_{\text{part}} \)

\( \text{emPr}_{\text{part}} \rightarrow (\text{pl}) + H_{\text{pr}_{\text{part}}} (+\text{At})(+\text{Ap}) \)

\( \text{emN}_{\text{part}} \rightarrow (\text{pl}) + H_{\text{n}_{\text{count}}} (+\text{Po})(+\text{At})^2(+\text{Co}) \)

\( H_{\text{pr}_{\text{part}}} : \text{pr}_{\text{part}} \)

Partitive pronouns \( (\text{pr}_{\text{part}}) \) are homophonous with those
that express the relations \( O', R \) and \( L \) listed in the fifth
column of Chart 4 (p. 97). Only the plural forms however
occur as partitive pronouns. Thus

\( \text{pr}_{\text{part}} \rightarrow \text{diaten, diamen, dinio, dira} \)
It should be noted that the optional pluralizer (sa) precedes the Head of a partitive phrase and occurs in both the noun and pronoun phrases.

A permutation obligatorily inverts the order of the relation marker (do) and the plural (sa).

**Permutation (obligatory)**

\[ \text{Rel}_{\text{part}} : \text{do} + \text{pl} : \text{sa} \Rightarrow \text{pl} : \text{sa} + \text{Rel}_{\text{part}} : \text{do} \]

**Example 1** (Simple embedding of a partitive Attributive noun phrase with plural permutation)

\[ (\text{At}_{\text{part}} \rightarrow \text{Rel}_{\text{part}} + \text{Axis}_{\text{part}} : \text{emN}_{\text{part}} \rightarrow \text{pl} + \text{n}_{\text{count}}) \]

\[ \text{go } \text{gása } \text{sa } \text{do } \text{tao } \text{t} \text{one (pl rm } \text{man}) \]

**Example 2** (Simple embedding of a partitive Attributive pronoun phrase)

\[ (\text{At}_{\text{part}} \rightarrow \text{Rel}_{\text{part}}/\text{Axis} : \text{emPr}_{\text{part}} \rightarrow \text{pl} + \text{H}_{\text{pr}_{\text{part}}} : \text{pr}_{\text{part}}) \]

\[ \text{go } \text{gása } \text{sa } \text{dira } \text{t} \text{one (pl them)} \]

**Example 3** (Simple embedding of a partitive Attributive phrase)

\[ (\text{At}_{\text{part}} \rightarrow \text{Rel}_{\text{part}} + \text{Axis}_{\text{part}} : \text{emN}_{\text{part}} \rightarrow \text{H}_{\text{n}_{\text{count}}} + \text{Po} : \text{N}_{\text{po}} \rightarrow \text{Rel}_{\text{po}} + \text{Axis}_{\text{po}} : \text{emN} \rightarrow \text{H}_{\text{n}} + \text{Po} : \text{Pr}_{\text{po}} + \text{At}_{\text{dem}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{dem}} : \text{dem}) \]
A phrase type which is attributive only to the numeral (Class 1) Head of an embedding Axis is the teen-count Attributive phrase (At\textsubscript{tc}). This phrase is used to construct numerals from eleven to nineteen inclusive.\footnote{Younger Ivatan speakers rarely use this construction. Instead they use Spanish numerals.} The relation marker is si, morphophonemically abbreviated to -\textsubscript{s} following vowel final numerals. The Head of the embedded Axis is a single item charoa (ka- + roa \rightarrow cha- + roa // i+\textsubscript{3}) meaning "second" and referring to the second decade. The phrase is not expandable by optional tagmemes.

\begin{align*}
5(f) & \quad \text{At}\textsubscript{tc} \rightarrow \text{Rel}\textsubscript{tc} + \text{Axis}\textsubscript{tc} \parallel \text{H}_{n\text{numl}} + \\
& \quad \text{Rel}\textsubscript{tc} : si \\
& \quad \text{At}\textsubscript{tc} : \text{charoa}
\end{align*}

\textbf{Examples}

\begin{align*}
\text{go} & \quad \text{gosas} \quad \text{charoa} \quad "\text{eleven}"
\text{roas} & \quad \text{charoa} \quad "\text{twelve}"
\end{align*}
A characterization Attributive phrase (At_ch) occurs in Ivatan. Semantically it is similar to a qualifying Attributive phrase. The relation marker is so. The Head of the embedding Axis to which this phrase type is attributive is manifested by descriptive stems and numerals, whereas the Head of the embedded Axis is manifested by common nouns. The Head of a qualifying attributive phrase is transformable with the Head of the Axis to which it is attributive without change of meaning.\(^5\) The Head of a

\(^5\)Such a transformation, although not altering the essential meaning of the expression, is stylistically meaningful. The Head of the embedding phrase has greater semantic priority, or emphasis, than the Head of the embedded phrase.
characterization phrase, however, is not transformable with the Head of its embedding Axis. For example:

(a) \[ \text{rakoh} \at \big ( \text{rm}_{\text{at}} \text{head} ) \] "big head"

(b) \[ \text{goho} \at \text{head} ( \text{rm}_{\text{at}} \text{big} ) \] "big head"

(c) \[ \text{rakoh} \at \text{big} ( \text{rm}_{\text{ch}} \text{head} ) \] "big headed"

Possible expansions of the embedded characterization noun phrase have not been determined. One textual example has an embedded Locative phrase following the embedded Head (see example 2(b) below).

**Example 1** (Simple embedding of a characterization Attributive phrase)

\[ \text{At}_{\text{ch}} \rightarrow \text{Rel}_{\text{ch}} + \text{Axis}_{\text{ch}} : \text{emN}_{\text{ch}} \rightarrow H_{n_{\text{cn}}} \]

\[ \text{go} \at \text{gása} \at \text{so} \at \text{padang} \] "the one-legged(person)"

**Example 2** (Embedding of a characterization Attributive phrase within a qualifying Attributive phrase)

\[ \text{At}_{\text{q}} \rightarrow \text{Rel}_{\text{at}} + \text{Axis}_{\text{q}} : \text{emN}_{\text{q}} \rightarrow H_{q} + \text{At}_{\text{ch}} \rightarrow \text{Rel}_{\text{ch}} + \text{Axis}_{\text{ch}} : \text{emN}_{\text{ch}} \rightarrow H_{n_{\text{cn}}} \]
A similitude Attributive phrase (At_{si}) may be embedded following a Head expounded by the noun gakma "likeness". The relation marker is -y. The exponents of the embedded Axis have not been fully determined. They include common and proper nouns (the latter preceded by a determiner, si); Relator and Axis occur in dual function when they are expounded by a pronoun.

\[
5(h) \text{At}_{si} \rightarrow \begin{cases} 
\text{Rel}_{si} + \text{Axis}_{si} \\
\text{Rel}_{si}/\text{Axis} 
\end{cases} // H : \text{gakma} \ldots _____ \\
\text{Rel}_{si} : -y \\
\text{Rel}_{si}/\text{Axis} : \text{emPr}_{si} \\
\text{Axis}_{si} : \text{emN}_{si} \\
\text{emPr}_{si} \rightarrow H : \text{pr}_{si} \ldots \\
\text{H} : \text{det} + n_p \ldots \\
\text{emN}_{si} \rightarrow \begin{cases} 
\text{H} : n_{cn} \ldots 
\end{cases} 
\]

Example 1 (Simple embedding of a similitude Attributive phrase)
Example 2 (Simple embedding of a similitude Attributive phrase following permuted plural and Possessor tagmemes)

\[(At_{si} \rightarrow Rel_{si} + Axis_{si} : emN_{si} \rightarrow H : n_{cn})\]

\[\text{go gakmay to rml likeness - (rmsi man)}\]

"the one like a man"

Example 2 (Simple embedding of a similitude Attributive phrase following permuted plural and Possessor tagmemes)

\[(pl + Po : Pr_{po} + At_{si} \rightarrow Rel_{si} + Axis_{si} : emN_{si} \rightarrow H : n_{c})\]

\[\text{go gakma na say ganak rm likeness (his) pl- (rmsi child)}\]

"like his children" or "as if they were his children"

**Coordination.** The Coordination tagmeme (Co) is of Relator-Axis structure with an optional preceding Relator-Axis (with optional Relator) to provide for sequences of coordinated nouns. The choice of a relation marker is determined partly by the distribution of the embedding Axis. Thus gas may only be chosen as the relation marker if the Coordination tagmeme is in the manifesting string of a Classificational Predicate \((Pn2 : N_{class})\). Axis may be expounded by either an embedded noun phrase or an embedded pronoun phrase. The latter exponence must be preceded by kan.

6. \[\text{Co : N}_{co}\]

\[N_{co} \rightarrow ((Rel_{co}) + Axis_{co}) + Rel_{co} + Axis_{co}\]

\[\text{Rel}_{co} : \begin{cases} 
\text{gas // # H : n (+ X) + } \\
\text{(gas) kan}
\end{cases}\]
Where X is any other allowable tagmemic sequence.

\[ \text{Axis}_{\text{co}} : \left\{ \begin{array}{l}
\text{emN}_{\text{co}} \\
\text{emPr}_{\text{co}} \text{ // kan } + 
\end{array} \right\} \]

\[ \text{emN}_{\text{co}} \rightarrow (\text{Det}\alpha) + H_n\alpha ( + \text{pl})( + \text{At})^2( + \text{Co}) \]

**Reading Constraint on emN_{co}**

\[ (\text{Det}\alpha) + H\alpha . . . \text{ // Rel}_{\text{co}} : (\text{gas}) \text{ kan } + 
\]

\[ H . . . \text{ // elsewhere} \]

\[ \text{emPr}_{\text{co}} \rightarrow H_{\text{pr}_{\text{co}}} (+ \text{At})( + \text{Ap})( + \text{Co}) \]

\[ \text{Det} : \text{no, ni, da} \]

Preceding da the relation marker kan is morphophonemically changed to ka. \( (\text{kan} \rightarrow \text{ka // ___} + \text{da}) \)

\[ H_{\text{pr}_{\text{co}}} : \text{pr}_{\text{co}} \]

The pronoun series in Coordination phrases is the same as that which indicates Associative function on the clause level and is listed under A in Chart 4 (p. 97).

Apparent examples of coordination where gas is the relation marker and the preceding Head is not preceded by a clause boundary (#) are examples of clause coordination, not of phrase coordination. In the following pair of examples phrase coordination in (1) is marked by either kan or gas kan; and clause coordination in (2) is marked by either gas or gas kan. In (1) Co has been (optionally) permuted to a position following Topic.
(1) chito dog, T companion (his) cat.
"Dogs and cats are his companions."

(2) chito dog, T companion (his) cat, T enemy (his)
"Dogs are his companions and cats are his enemies."

Example 1 (Simple embedding of a Coordination phrase following a Head expounded by a noun)

(\(Co : N_{co} \rightarrow Rel_{co} + Axis_{co} : emN_{co} \rightarrow Det_{\alpha} + H_{n_{\alpha}}\))

(a) \(\frac{\frac{\frac{\text{go}}{\text{rm}_t}}{\text{baka gas kano bago}}}{\text{cow (rm}_co \text{ det pig)}\)}
"the cow and the pig"

(b) \(\frac{\frac{\frac{\text{sa}}{\text{rm}_t}}{\text{Juan kan ni Maria}}}{\text{Juan (rm}_co \text{ det Maria)}\)}
"Juan and Maria"

(c) \(\frac{\frac{\frac{\frac{\text{sa}}{\text{rm}_t}}{\text{Juan gas ka da Pedro}}}{\text{Juan (rm}_co \text{ det Pedro)}\)}{\text{Juan, Pedro, and their companions}}"

Example 2 (Simple embedding of a Coordination phrase following a Head expounded by a pronoun. The Head of the embedded phrase is expounded in (a) by a noun, and in (b) by a pronoun followed by an Appositional phrase.)

(\(Co : N_{co} \rightarrow Rel_{co} + Axis_{co} : emN_{co} \rightarrow det_{\alpha} + H_{n_{\alpha}}\))

(a) \(\frac{\text{kami ka da Juan}}{\text{we (rm}_co \text{ det Juan)}\)}
"Juan and his companions and I"
(b) \((\text{Co}: \text{N}_{\text{co}} \rightarrow \text{Rel}_{\text{co}} + \text{Axis}_{\text{co}} : \text{emPr}_{\text{co}} \rightarrow \text{Hpr}_{\text{co}} + \text{Ap})\)

\[ \text{kami we (rmco they rmap companion (his))} \]

"his companions and I"

**Example 3** (Double embedding of a Coordination phrase)

\((\text{Co}: \text{N}_{\text{co}} \rightarrow \text{Rel}_{\text{co}} + \text{Axis}_{\text{co}} : \text{emN}_{\text{co}} \rightarrow \text{det}_\alpha + \text{Hn}_\alpha + \text{Co}: \text{N}_{\text{co}} \rightarrow \text{Rel}_{\text{co}} + \text{Axis}_{\text{co}} : \text{emPr}_{\text{co}} \rightarrow \text{Hpr}_{\text{co}} + \text{Ap})\)

\[ \text{kami qas ka da Juan kan nira go raray na (rmco) (rmco) (rmco) (rmco)} \]

"Juan and his friend and their companions and I"

**Example 4** (Simple embedding of a sequence of Coordination phrases)

\((\text{Co}: \text{N}_{\text{co}} \rightarrow \text{Axis}_{\text{co}} + \text{Rel}_{\text{co}} + \text{Axis}_{\text{co}} : \text{emN}_{\text{co}} \rightarrow \text{Hn})\)

\[ \text{go baka bago kan chito \"the cow, the pig and the dog\"} \]

Appositional phrases only occur embedded in pronoun phrase manifestations of clause level and (in the case of Possessor and Partitive) phrase level tagmemes, in which the pronoun is either third person singular or third person plural. Appositional phrases are Relator-Axis in structure. The form of the relation marker is concordant with the function of the embedding Rel/Axis tagmeme. Thus an Appositional phrase embedded within a pronoun phrase
manifestation of Subject has as the exponent of its Relator
tagmeme one of the Subject subclass of relation markers—
$rms$. Likewise, Appositional phrases embedded within Topic,
Object prime, Associative and Referent tagmemes have as the
exponent of their Relator tagmemes the same subclasses of
relation markers which expound Relators of their respective
noun phrase expounded Axes at the clause level.

Appositional phrases within Possessor and Partitive
phrases likewise utilize possessor and partitive relation
markers respectively as exponents of the appositional
Relator.

Texts show no cases of clauses having Appositional
phrases embedded in more than two tagmemes, and in all cases
of sequences of two tagmemes having embedded Appositional
phrases, one is always embedded in a Subject tagmeme.

Where a clause level tagmeme with an embedded Apposition-
al phrase is followed by another tagmeme with pronoun
exponent, the Appositional phrase is permuted to follow
that pronoun. If the second tagmeme also has an embedded
Appositional phrase, the two Appositional phrases will
occur adjacent to one another in the same order as their
respective pronoun Heads.

\[
\begin{align*}
\text{Ap} & : \text{emN}_{ap} \\
\text{emN}_{ap} & \rightarrow \text{Rel}_{ap}^x + \text{Axis}^x \parallel \text{H}_{pr} : 3\text{rd person} (+At) + \\
\text{Rel}_{ap} & : \text{rm}_x \parallel \text{Rel}_x/\text{Axis} : \text{H}_{pr} (+At) + \\
\end{align*}
\]

Where $x$ is any subclass of relation markers.
Apposition Permutation Rule 1

\[
\text{Ap} + \begin{cases} \text{At}_{\text{dem}} \\ \text{pl} \end{cases} \Rightarrow \begin{cases} \text{At}_{\text{dem}} \\ \text{pl} \end{cases} + \text{Ap}
\]

Example

(a) \( qo \text{chito na sa no tao} \)

\( \text{rm}_{t} \) \( \text{dog} \) (his) \( \text{pl} \) (\( \text{rm}_{ap} \) \( \text{man} \))

"the dogs of the man"

(b) \( qo \text{chito naa} \text{ya} \)

\( \text{rm}_{t} \) \( \text{dog} \) (his) (\( \text{rm}_{at} \) - this) (\( \text{rm}_{ap} \) \( \text{man} \))

"this dog of the man"

(c) \( qo \text{chito na saa} \text{ya} \)

\( \text{rm}_{t} \) \( \text{dog} \) (his) \( \text{pl} \) (\( \text{rm}_{at} \) - this) (\( \text{rm}_{ap} \) \( \text{man} \))

"these dogs of the man"

Double parentheses are placed around the literal translation of the Appositional phrase in each of the above examples in order to represent adequately the degree of embedding in relation to the whole Topic phrase.

Example (c) above is a result of two applications of the Permutation Rule. The first application permutes the Appositional phrase to a position between the plural and the demonstrative Attributive tagmemes. The second application permutes the Appositional phrase to a position following the demonstrative Attributive.

Apposition Permutation Rule 2
\[H_1 (+ At_1) + Ap_1 + H_2 (+ At_2)(+ Ap_2) \rightarrow H_1 (+ At_1) + H_2 (+ At_2) + Ap_1 (+ Ap_2)\]

For an example of Apposition Permutation Rule 2 see example 3 below.

The formulae on which the examples are based are stated before each citation.

**Example 1** (Embedding of an Appositional phrase following (a) Subject pronoun Head (b) Referent pronoun Head (c) Possessor pronoun Head)

(a) \((S : Pr_s \rightarrow Rel_s / Axis : emPr_s \rightarrow H_{pr_s} + Ap : emN_{ap} \rightarrow \text{Rel}_{ap} : rm_s + \text{Axis} : emN \rightarrow H_n)\)

\[\text{da} \quad \text{no} \quad \text{tao} \quad "\text{they, the men}"\]

\[\text{S/they} \quad (\text{rm}_{ap} \quad \text{man})\]

(b) \((R : Pr_r \rightarrow Rel_r / Axis : emPr_r \rightarrow H_{pr_r} + Ap : emN_{ap} \rightarrow \text{Rel}_{ap} : rm_r + \text{Axis} : emN \rightarrow H_n)\)

\[\text{dira} \quad \text{do} \quad \text{tao} \quad "\text{they, the men}"\]

\[\text{R/they} \quad (\text{rm}_{ap} \quad \text{man})\]

(c) \((T : N_t \rightarrow Rel_t + \text{Axis} : emN \rightarrow H_n + Po + At_{dem}\)

\[\text{Po} : emPr_{po} \rightarrow H_{pr_{po}} + Ap : emN_{ap} \rightarrow \text{Rel}_{ap} : rm_{po} + \text{Axis} : emN \rightarrow H_n + Po : emPr_{po} \rightarrow H_{pr_{po}})\]

\[\text{qc} \quad \text{chito} \quad \text{naaya} \quad "\text{this dog of his friend}"\]

\[\text{rm}_{t} \quad \text{dog} \quad (\text{his})-(\text{rm}_{at}-\text{this}) \quad (\text{rm}_{ap} \quad \text{friend}-(\text{his}))\]
The Appositional phrase in the above example has been permuted from its position within the embedded pronoun phrase because of the adjacent demonstrative Attributive.

Example 2 (Embedding of an Appositional phrase within an embedded Partitive phrase)

(T : N_t → Rel_tα + Axisα : emN → H_n : n_num2 + Ap_{part} → Rel_{part}/Axis : emPr_{part} → pl + H_{part} + Ap : emN_{ap} → Rel_{ap}α + Axisα : emN → H_n : n_num2 + pl + Ap_{dem})

go qása sa dira do qánem saaya rm_t one (pl rm_{part}/them(rm_{part} six) pl-(rm_{at}-this))
"one of them, these six"

Example 3 (Embedding of Appositional phrases in a sequence of clause level tagmemes, with permutation of Appositional phrases)

(VCl_{of} → Pvl_en + S : Pr_s + T/O : Pr_t
Pr_s → Rel_s/Axis : emPr_s → H_{pr_s} + Ap : emN_{ap} → Rel_{ap}α : rm_s + Axisα : emN → H_n
Pr_t → Rel_t/Axis : emPr_t → H_{pr_t} + Ap : emN_{ap} → Rel_{ap}α : rm_t + Axisα : emN → H_n)

gahapena sira no tao go libro
get-or-S/he T/their (rm_s man) (rm_t book)
"The man is getting the book."

5.3 Predicate Phrases. Various types of phrases are mentioned above (section 4.1.1) as manifesting Predicates of the different clause types. Phrase level formulae are
here presented as lower level expansions of the clause level exponence labels. A Benefactive noun phrase consists of a Head obligatorily expounded by \textit{dira} "property" and followed by a Possessor.

\[ \begin{align*}
N_{\text{ben}} & \rightarrow H_{\text{ben}} + Po \\
H_{\text{ben}} : \text{dira}
\end{align*} \]

Example 1 Based on a reading of NC\textsubscript{1} (see p. 69) giving the clause level formula: Pn\textsubscript{1} + T/S

(a) \[ (Pn\textsubscript{1} : N_{\text{ben}} \rightarrow H_{\text{ben}} + Po : Pr_{po} \rightarrow Rel_{po}/Axis : emPr_{po} \rightarrow H_{pr_{po}}) \]

T/S : \( N_{t} \rightarrow Rel_{t} + Axis_{t} : emN \rightarrow H_{n} + At_{dem} : emN_{at} \rightarrow Rel_{at} + Axis_{dem} : dem_{1} \)

\textit{dira} \hspace{1cm} \textit{nic} \hspace{1cm} \textit{go} \hspace{1cm} \textit{chito} \hspace{1cm} \textit{gaya} \hspace{1cm} \text{property} \hspace{1cm} \text{(your)} \hspace{1cm} \text{T} \hspace{1cm} \text{dog} \hspace{1cm} \text{(rm at-this)}

"This dog is for you."

(b) \[ (Pn\textsubscript{1} : N_{\text{ben}} \rightarrow H_{\text{ben}} + Po : N_{po} \rightarrow Rel_{po} + Axis_{po} : emN \rightarrow H_{n}) \]

T/S : dem_{t}

\textit{dira} \hspace{1cm} \textit{n} \hspace{1cm} \text{tac} \hspace{1cm} \text{ya} \hspace{1cm} \text{property} \hspace{1cm} \text{(rm po man) T/this}

"This is for the man."

(c) \[ (Pn\textsubscript{1} : N_{\text{ben}} \rightarrow H_{\text{ben}} + Po : Pr_{po} \rightarrow Rel_{po}/Axis : emPr_{po} \rightarrow H_{pr_{po}} + Ap : emN_{ap} \rightarrow Rel_{ap} + Axis_{ap}) \]

T/S : \( N_{t} \rightarrow Rel_{t} + Axis_{t} : emN + H_{n} \)
A classificational noun phrase consists of a Head (preceded by a determiner if it is expounded by a proper noun) with optional expansion in the same manner as an embedded noun phrase. A classificational noun phrase is not preceded by a Relator, since it is the exponent of a Classificational Predicate and is formally distinguished from other noun phrases of similar structure by occurring initially in a clause.

2. $N_{class} \rightarrow (\text{det}) + H_n(+pl)(+Po)(+At)(+Co)$

**Exponence.**

$H_n : n_p // \text{det } +$ 

$H_n : n_x // \text{elsewhere}$

Where $x$ is any noun subclass other than the noun proper subclass.

**Permutation** (optional)

$H + X + T/S \Rightarrow H + T/S + X$

Where $X$ is any noun phrase exponent of Possessor or Coordinate tagmemes in $N_{class}$.

Compare the following pairs of examples, where in l(a), Possessor occurs preceding the Topic and in l(b), Possessor follows the Topic. In 2(a), a Coordinate noun
phrase precedes the Topic, whereas in 2(b), it follows the Topic. This example is ambiguous with a clause having a Coordinate noun phrase as part of the Topic syntagmeme. In example 3(a), an Attributive precedes the Topic, whereas in 3(b), it follows the Topic and is only interpretable as an Attributive within the Topic syntagmeme.

1(a) kayvan no tao si Juan
friend (man T Juan)
"Juan is a friend of the man."

(b) kayvan si Juan no tao
friend T Juan (man)
"Juan is a friend of the man."

2(a) kayvan ko gas kan kakteh ko si Juan
friend (brother (my) T Juan
"Juan is my friend and brother."

(b) kayvan ko si Juan gas kan kakteh ko
friend (my) T Juan (brother (my))
"Juan is my friend and brother," or
"Juan and my brother are my friends."

3(a) kayvan ko ga rakoh si Juan
friend (big) (my) T Juan
"Juan is my big friend."

(b) kayvan ko si Juan ga rakoh
friend (my) T Juan (big)
"Big Juan is my friend."

The following examples are based on a reading of NC2 (see p. 69) giving the clause level formula: Pn₂ + T/S + L.
Example 1

\[(Pn_2 : N_{class} \rightarrow H_n : n_c + Po : Pr_{po} \rightarrow Rel_{po}/Axis : emPr_{po} \rightarrow H_{pr_{po}})\]

\[T/S : dem_t\]

\[L : N_{lo} \rightarrow Rel_{lo} + Axis : emN \rightarrow H_n)\]

kayvan ko ya do basko

Friend (my) this Basco

"This is my friend in Basco."

Example 2

\[(Pn_2 : N_{class} \rightarrow det + H_n : n_p)\]

\[T/S : N_t \rightarrow Rel_t + Axis + : emN \rightarrow H_n + At_q \rightarrow Rel_{at} + Axis_q : emN_q \rightarrow H_q + Po : Pr_{po} \rightarrow Rel_{po}/Axis : emPr_{po} \rightarrow H_{pr_{po}}\]

\[L : N_{lo} \rightarrow Rel_{lo} + Axis : emN \rightarrow H_n)\]

si Juan go rakoh ga kayvan ko do basko

det Juan this big my friend do Basco

"Juan is my big friend in Basco."

The Predicates of Existential, Wh-Interrogative, Classificational, Descriptive and Verbal constructions all have textual examples in which what is apparently the Head of the Predicate manifesting constructions is preceded by a limited class of adverbial auxiliaries and optionally by the relation marker \(ga\). This class of adverbials includes such forms as \(tod\) "just", \(goyod\) "very", and \(kollang\).
"insufficient."

An obligatory permutation places any manifesting pronouns of verbal clause tagmemes between the Auxiliary and the verb.

Compare the following pair of examples which show the same verbal clause both with and without an Auxiliary.

(1) qinahap na sa do vahay na
    of-got S/he T/Them R house (his)
    "He got them in his house."

(2) tod na sa qa qinahap do vahay na
    just S/he T/Them RM at of-got R house (his)
    "He just got them in his house."

Insufficient data at this stage of analysis preclude an adequate formalization of this type of phrase expansion.

Attributive constructions following verbal and adjectival constructions will be considered in Chapter VI as derived from independent constructions.

Other instances of pre-Predicate occurrence of clause level tagmemes are dealt with in section 6.2.
CHAPTER VI

CLAUSE DERIVATIONS

6.0 Basic and Derived Clauses. That some constructions in a language are more basic in some sense than others has been clearly demonstrated by Harris.\footnote{Zellig Harris, "Discourse Analysis," \textit{Language} XXVIII (1952), 1-30, 474-494; "Co-occurrence and Transformation in Linguistic Structure," \textit{Language} XXXIII (1957), 283-340.} He developed a means of formally stating the relation between the basic or kernel constructions and the derived constructions by treating the latter as a transforms of the former. Harris states, "A language cannot be fully described in purely constructional terms, without the transform relation."\footnote{Ibid., p. 338} Chomsky utilized the concept when he wrote, "We can greatly simplify the description of English and gain new and important insights into its formal structure if we limit the direct description in terms of phrase structure to a kernel of basic sentences . . . deriving all other sentences from these . . . by transformation, possibly repeated."\footnote{Noam Chomsky, \textit{Syntactic Structures} (Mouton and Company, The Hague, 1957), 106.}

In discussing the tagmemic system in relation to kernel and transforms Pike states, "In tagmemic terms it might be possible to treat as the 'kernel' of the grammar those
structures which make up the nucleus of the grammar system as a whole. Items which could be derived from these by simple rules would then be treated as marginal sentence types."\(^4\) However in a later publication he states, "Transformation of construction types, therefore, is developed in tagmemic field theory as a phenomenon of matrix multiplication—appearing first of all as a characteristic of the relationship between subsystems in a field, rather than primarily as a set of rules. Passage from kernel matrix to derived matrices and to productive application of the field notation in speech is mediated by tagmemic (plus lexemic and phonological) formulas."\(^5\)

In this dissertation the changes that a clause type or any tagmeme, or series of tagmemes undergoes is specified by a rule of the form \(A \rightarrow B\).

Three types of derived clause may be distinguished:

(1) independent, including Stative, Emphasis, Negation, emphasis, Identificational and Yes-No Interrogative types;
(2) dependent, including Attributive and Conjunctive types; and
(3) embedded, included Attributive, Noun-replacing, and Temporal types.


6.1 Stative Clause Derivations. Stative Clauses are derivable from two different clause types, one verbal, the other adjectival.

A verbal stative is derived from an Object focus clause ($VCl_{of}$) and is translatable as a passive construction. The Topic retains its situational meaning of goal in the stative clause, whereas Subject changes its situational meaning from actor to agent. Subject also loses its obligatory status in the stative clause, becoming optional. The Object focus suffix, -en, becomes the stative prefix ma-. (Compleitive aspect ni- ~ in- becomes completive na-).

$VCl_{of} \Rightarrow stC$
$+S \Rightarrow (+ S)$
$-en \Rightarrow ma-$

Examples (Angle brackets in the citation, and in the literal and free translations indicate optional occurrence).

1(a) $\text{voyawen mo go manok} \quad \text{"You chase the chicken."}$

$\Rightarrow \text{mavoyaw <mo> go manok}$

$\text{st-chase <S/you> T chicken}$

"The chicken is being chased <by you>.

1(b) $\text{vinoyaw mo go manok} \quad \text{"You chased the chickens."}$

$\Rightarrow \text{navoyaw <mo> go manok}$

$\text{st-chase <S/you> T chicken}$

"The chickens were chased <by you>."
Stative clauses having adjectival stems in the Predicate are only partially derivable from adjectival constructions. These stative clauses differ from verbal-derived stative clauses not only in the class of Predicate exponence (adjective versus verb) but in their clause expansion. Adjectival stative constructions do not have non-Topic Subject tagmemes expressing an agent, neither do they have other verbal clause tagmemes such as Object and Associative. Yet adjectival statives do function in some respects like verbal statives in that they are inflectable for completive versus non-completive aspect (ma- versus na-) as well as for intensity (reduplicative prefix.) These meanings are not derivable directly from adjectival clauses, although there is considerable formal equivalence.

To consider adjectival statives as basic verbal clauses because they are not fully derivable from adjectival clauses,
would necessitate establishing a further verb sub-class whose members completely overlap with the adjective class. Such an analysis seems too redundant to be valid.

At this stage of the analysis it seems preferable to consider the adjectival stative, as a type, to be derivable from the adjectival construction, with formal and semantic development within the type occurring by analogy with verbal statives. Complete formal ambiguity between adjectival constructions and adjectival statives occurs in a number of cases. Compare the following pairs of examples.

In example 1 an adjectival construction, inflected for positive degree is given with three different Temporal exponents.

In example 2 the derived stative constructions are given showing the change from noncompletive to completive aspect with the change in Temporal exponents.

In examples 3 and 4 comparative degree adjectival constructions and their formally (but not semantically) related intensive stative forms are given.

Example 5 illustrates an intensive adjectival form.

**Examples**

1(a) mapteng  
adj-hungry  
\[qo\]  
\[tao\]  
\[qandelak\]  
\[T\]  
\[man\]  
\[tomorrow\]  
"The man will be hungry tomorrow."

(b) mapteng  
adj-hungry  
\[qo\]  
\[tao\]  
\[sichangoria\]  
\[T\]  
\[man\]  
\[today\]  
"The man is hungry now."
adj-hungry
tao
kakoyab
man
yesterday
"The man was hungry yesterday."

2(a) mapteng  go  tao  qandelak
st-hungry  T  man  tomorrow
"The man will be hungry tomorrow."

(b) naptepteng  go  tao  sichangoriaw
st-hungry  T  man  today
"The man is hungry now."

(c) napteng  go  tao  kakoyab
st-hungry  T  man  yesterday
"The man was hungry yesterday."

3(a) maptepteng  go  tao  andelak
adj-comp-hungry  T  man  tomorrow
"The man will be hungrier tomorrow."

(b) maptepteng  go  tao  sichangoriaw
adj-comp-hungry  T  man  today
"The man is hungrier today."

4(a) maptepteng  go  tao  andelak
st-int-hungry  T  man  tomorrow
"The man will be very hungry tomorrow."

(b) naptepteng  go  tao  sichangoriaw
st-int-hungry  T  man  today
"The man is very hungry now."

5. goyod qa  mapteng  go  tao  andelak
very rm  adj-hungry  T  man  tomorrow
"The man will be very hungry tomorrow."

6.2 Emphasis Derivations. Any clause may undergo a sequence of emphasis derivations by which one or more nominal phrases are placed before the Predicate, being separated from it
and from other emphasized phrases by the relation marker qam.

Phrases which may be emphasized are Subject, Topic (in portmanteau function with any tagmeme), Referent, Location and Temporal. Non-Topic Object, Object prime, Associative, Manner and remaining peripheral tagmemes are not emphasizable.

The Topic relation markers are replaced in Emphasis position by the no subgroup of relation markers, which in non-emphatic clause and phrase positions serve to mark Subject, Associative and Possessor functions (see Chart 3, p. 93). Before a personal noun phrase however, the relation marker remains si when emphasized. Subject, Referent, Location and Temporal retain their respective non-emphatic relation markers when emphasized. The pronominal exponence of emphasized and Topic tagmemes is the same. The Topic series which occurs unemphasized following Subject (column 3, Chart 4, p. 97), becomes the emphasized pronoun series. However the third person singular form, sia ~ φ, becomes qia when emphasized.

Topic demonstratives, dem₁, change to the dem₂ set when emphasized. A concord pronominal subject marker replaces an emphasized Subject. A non-Subject Topic, manifested by a pronoun and occurring immediately following the Predicate, also requires a concord pronominal marker when emphasized (see derivation (2) below).
\[ C \Rightarrow \text{emC} \]

(1) \[ P(+S)(+X) + Y(+Z) \Rightarrow Y + \text{gam} + P(+S)(+X)(+Z) \]

(2) \[ (Y+)P + \begin{bmatrix} T + S \\ S + Z \end{bmatrix} \Rightarrow \begin{bmatrix} T \\ S \end{bmatrix} + \text{gam} + (Y+)P + \begin{bmatrix} T_c + S \\ S_c + Z \end{bmatrix} \]

\[ \begin{align*}
\text{rm}_t & \Rightarrow \text{rm}_4 \\
\text{ni} & \Rightarrow \text{si} \\
\text{pr}_{s,t} & \Rightarrow \text{pr}_3 \quad \text{∥} \quad \text{+ (X +) gam} \\
\text{sia} & \Rightarrow \text{qia} \\
\text{dem}_1 & \Rightarrow \text{dem}_2
\end{align*} \]

\[ T_c : \text{pr}_{tc} \]

\[ S_c : \text{pr}_{sc} \]

\[ \text{pr}_{tc} \Rightarrow \begin{bmatrix} \text{gako} \\ \text{ka} \\ \text{k} \\ \text{ta} \end{bmatrix} \quad \text{∥} \quad \text{T:} \quad \begin{bmatrix} \text{yaken} \\ \text{qimo} \\ \text{qia, N}_{sg} \end{bmatrix} + \text{gam} (+X + \text{gam}) + P+ \]

\[ \begin{bmatrix} \text{sira, N}_{pl} \\
\text{kami} \\
\text{kamo} \\
\text{sa} \end{bmatrix} \]
Example 1 (Subject emphasis)

(a) \textit{palangen} no tao go pagad
\textit{lead-of} S man T carabao

"The man is leading \underline{the carabao}.

\[ \Rightarrow \text{no tao gam palangen } \quad \text{go pagad} \]
\[ \text{lead-of} -Sc/he T \text{carabao} \]

"As for the man, he is leading \underline{the carabao}.

(b) \textit{palangen} go pagad
\textit{lead-of} -S/he T carabao

"He is leading \underline{the carabao}.

\[ \Rightarrow \text{qia gam palangen } \quad \text{go pagad} \]
\[ \text{lead-of} -Sc/he T \text{carabao} \]

"As for him, he is leading \underline{the carabao}.

Example 2 (Topic Emphasis)

(a) \textit{palangen} no tao go pagad
\textit{lead-of} S man T carabao

"The man is leading \underline{the carabao}.

\[ \Rightarrow \text{no pagad qam palangen no tao} \]
\[ \text{T carabao rm lead-of} S \text{man} \]

"As for the \underline{carabao}, the man is leading it."
(b) \textit{palangena} \textit{yaken} lead-of-S/he \textit{T/me} \\
"He is leading me."
\[ \Rightarrow \textit{yaken} \text{ qam } \textit{palangena} \text{ Tem/me rm}_{\text{em}} \text{ lead-of-S/he} \]
"As for me, he is leading me."

(c) \textit{mapalang} \textit{qako} \textit{no} \textit{tao} st-lead \textit{T/me} \textit{S} man
"I am being led by the man."
\[ \Rightarrow \textit{yaken} \text{ qam } \text{ mapalang} \text{ qako no} \text{ tao} \text{ Tem/me rm}_{\text{em}} \text{ st-lead} \text{ Tc/me S} \text{ man} \]
"As for me, I am being led by the man."

(d) \textit{mamalang} \textit{ka} \textit{so} \textit{pagad} lead-sf \textit{T/you} \textit{0} carabao
"You are leading a carabao."
\[ \Rightarrow \textit{gimo} \text{ qam } \text{ mamalang} \text{ so} \text{ pagad} \text{ Tem/you rm}_{\text{em}} \text{ lead-sf} \text{ 0} \text{ carabao} \]
"As for you, you are leading a carabao."

Example 3 (Referent Emphasis)
\textit{palangen} no \textit{tao go} \textit{pagad} do \textit{rarahan} lead-of S man T carabao R road
"The man is leading the carabao along the road."
\[ \Rightarrow \textit{do} \text{ rarahan qam} \text{ palangen no} \text{ tao go} \text{ pagad} \text{ Rem road rm}_{\text{em}} \text{ lead-of S} \text{ man T} \text{ carabao} \]
"Along the road is where the man is leading the carabao."

Example 4 (Locative Emphasis)
\textit{palangena} \textit{go} \textit{pagad} do \textit{basko} lead-of-S/he T carabao L Basco
"He is leading the carabao to Basco."

\[ \text{do} \quad \text{basko} \quad \text{gam} \quad \text{palangena} \quad \text{go} \quad \text{pagad} \]
\[ \text{Lem Basco} \quad \text{rm} \quad \text{lead-of-S/he} \quad \text{T} \quad \text{carabao} \]

"To Basco is where he is leading the carabao."

**Example 5 (Temporal Emphasis)**

\[ \text{palangena} \quad \text{sia} \quad \text{gandelak} \]
\[ \text{lead-of-S/he T/it Te-tomorrow} \]

"He will lead it tomorrow."

\[ \Rightarrow \text{gandelak} \quad \text{gam} \quad \text{palangena} \quad \text{sia} \quad \text{rm} \quad \text{lead-of-S/he} \quad \text{T/It} \]

"Tomorrow is when he will lead it."

**Example 6 (Emphasis of multiple tagmemes)**

\[ \text{palangena no tao go pagad do rarahan} \]
\[ \text{lead-of-S man T carabao R road} \]

\[ \text{gandelak Te-tomorrow} \]

"The man will lead the carabao along the road tomorrow."

\[ \Rightarrow \text{gandelak} \quad \text{gam} \quad \text{do} \quad \text{rarahan} \quad \text{gam} \quad \text{no} \quad \text{tao} \quad \text{gam} \]
\[ \text{Te-tomorrow rm road rm man rm} \]

\[ \text{palangena go pagad} \]
\[ \text{lead-of-S/he T carabao} \]

"As for the man, tomorrow, along the road, he will lead the carabao."

**Example 7 (Emphasis of Causative construction tagmemes)**

\[ \text{qipapalang mo diaken go pagad} \]
\[ \text{af-lead S/you R/me T carabao} \]

"You let me lead the carabao."
(a) qimo gam qipapalang mo diaken go pagad carabao

"As for you, let me lead the carabao."

(b) diaken gam qipapalang mo go pagad carabao

"As for me, you let me lead the carabao."

Example 8 (Emphasis of Nominal Construction tagmemes)

(a) dira ko go pagad carabao

"The carabao is for me."

(b) motdeh gako

"I am a child."

(c) kayvan ko gava si Juan

"Juan is not my friend."
6.3 Negative Emphasis Derivation. A clause type appearing frequently in elicited paradigms but occurring infrequently in textual material has an obligatory Negative tagmeme correlated with an absence of Topic. The clearest instances occur in transitive causative constructions where the verbal affixation would suggest Object focus. However instead of Topic/Object, Object prime occurs. A negative tagmeme is obligatory to the construction. One further characteristic
of these constructions is an additional stress on the penultimate syllable of verb stems having ultimate stress. Note Example 2 below, in which the stem tayo "hide" has penultimate stress in derived constructions only.

Two clause types may be suggested as possible base forms of the derived construction. The first, VCcl_or, appears similar in structure and is semantically almost equivalent to the derived form. However two problems arise. (1) The Negative peripheral tagmeme does not occur with VCcl_or in a non-emphatic negative clause which would provide a logical base for the derived clause. (2) Informants invariably provided a Subject focus clause, VCcl_sf, when asked to supply non-negative equivalents of the derived forms. The alternate clause type, then, from which negative emphasis constructions could be considered to be derived would be VCcl_sf (read with a Negative tagmeme). A further problem arises here in that Object in VCcl_sf can be expounded only by a common noun phrase, whereas Object prime in the derived form may be expounded by common or proper noun phrases, as well as by pronouns. It is necessary then to assume that, given VCcl_sf as the base for the derived construction, Object prime is expoundable not on the basis of the exponent of Object in VCcl_sf (although actual real world identity be the same) but by analogy with Object prime exponents in non-derived clauses.
VCcl\(_sf\) \(\rightarrow\) EmNegVCcl

**Condition:** VCcl\(_sf\) is read with + 0 + Neg

\[
Pcl_{\text{mapa-}} \rightarrow Pcl_{\text{gipa-}}
\]

\[
T/S \rightarrow S
\]

\[
0 \rightarrow 0'
\]

**Example 1**

\[
\frac{\text{mapasda}}{\text{sf-c-split}} \quad qako \ qava \ dimo \ so \ kayo
\]

"I am not letting you split wood."

\[
\frac{\text{gipasda}}{\text{emneg-c-split}} \quad \frac{\text{ko}}{S/I} \ qava \ dimo \ so \ kayo
\]

"I will not let you split wood."

Compare the latter derived clause with the non-negative Object focus causative clause:

\[
\frac{\text{gipasda}}{\text{or-c-split}} \quad \frac{\text{ko}}{S/I} \ dimo \ so \ kayo
\]

"I will let you split the wood."

**Example 2**

\[
\frac{\text{mapatayo}}{\text{sf-c-hide}} \quad \frac{\text{kaava}}{T/you-neg} \ diaken \ so \ tao
\]

"You are not letting me hide the man."

\[
\frac{\text{gipatayo}}{\text{emneg-c-hide}} \quad \frac{\text{moava}}{S/you-neg} \ diaken \ so \ tao
\]

"Do not let me hide the man."
Compare the following examples, in which Object prime is expounded by a proper noun phrase and by a pronoun.

\[
gipatáyo \quad moava \quad diaken \quad si \quad Juan
\]

"Do not let me hide Juan."

\[
gipatáyo \quad moava \quad sia \quad diaken
\]

"Do not let me hide him."

Further apparent examples of emphatic negative constructions have been tentatively identified as derivations of intransitive causative constructions and of noncausative constructions.

An example of the former in which an aptative affix (chay-) occurs in the verb is as follows:

\[
gichaypasávat \quad moava \quad diaken
\]

"You cannot let me go home."

This example is distinguished from the Associative focus equivalent, VCC2af (see p. 57), by the obligatory absence of Object and Associative Topic, and by the added stress on the stem.

An example of an emphatic negative derivation from a non-causative intransitive construction, in which tayo again appears but as representing intransitive verb class 6, is as follows (cooperative aspect, pachi-, occurs before the verb stem):
"Do not hide with me."

This example is distinguished from the Associative focus equivalent, VC6_{af} (see p. 36), by the obligatory absence of Associative Topic, and the presence of added stress on the stem.

There is evidence that emphatic negative constructions are derivable only from causative constructions or from non-causative constructions in which the verb stem is preceded either by an aptative and/or a cooperative aspect affix. Non-negative Associative focus clauses do not occur with a number of stems when the above aspect affixes are present.

6.4 Identificational Derivation. Any clause having an expressed Topic may form the basis of an Identificational Clause. The Topic is permuted to pre-Predicate position, the Topic relation markers changing to the no series where Topic is in portmanteau function with either Subject, Object, Associative or Beneficiary. (Before a personal noun phrase, however, ni remains si.) When Topic is in portmanteau function with Referent, the relation markers change to the do series.

Topic pronouns change to the same pre-Predicate set as described above for emphasized Topic pronouns.
Topic demonstratives, \( \text{dem}_1 \), change to the \( \text{dem}_2 \) set.

Predicate is nominalized by an immediately preceding \( \text{go} \).

\[
C \Rightarrow \text{idC}
\]
\[
P (+X) + T (+Y) \Rightarrow T + \text{go} + P (+X)(+Y)
\]
\[
\begin{align*}
\text{rm}_t & \Rightarrow \text{rm}_2 \quad /\ T/R: \\
\text{rm}_t & \Rightarrow \text{rm}_4 \quad /\ T/S,0,A,B: \\
\text{ni} & \Rightarrow \text{si} \quad // \\
\text{pr}_t & \Rightarrow \text{pr}_3 \quad //
\end{align*}
\]
\[
\begin{align*}
\text{sia} & \Rightarrow qia \quad // \\
\text{dem}_1 & \Rightarrow \text{dem}_2 \quad //
\end{align*}
\]

**Example 1** (Identificational derivation of verbal clauses)

(a) \text{palangen no tao go pagad no pinospos lead-of S man T carabao A rope}

"The man is leading the carabao with a rope."

\[
\Rightarrow \text{no pagad go palangen no tao no pinospos T_id carabao rm_id lead-of S man A rope}
\]

"It is the carabao that the man is leading with a rope."

(b) \text{qipalang no tao go pinospos so pagad ar-lead S man T rope 0 carabao}

"The man is leading the carabao with the rope."

\[
\Rightarrow \text{no pinospos go qipalang no tao so pagad T_id rope rm_id ar-lead S man 0 carabao}
\]

"It is with the rope that the man is leading the carabao."
(c) palangan no tao go rarahan so pagad
lead-rf S man T road O carabao

"The man is leading the carabao along the road."

⇒ do rarahan go palangan no tao so pagad
T_id road rm_id lead-rf S man O carabao

"It is along the road that the man is leading the
carabao."

(d) mamalang ka diaya so pagad
sf-lead you here O carabao

"You lead the carabao here."

⇒ gimo go mamalang diaya so pagad
T_id you rm_id sf-lead here O carabao

"It is you who leads the carabao here."

(e) mamalang ya no pinospos
sf-lead T this A rope

"This one is leading it with rope."

⇒ niaya go mamalang no pinospos
T_id this rm_id sf-lead A rope

"It is this one who is leading it with rope."

(f) mamalang si Juan do basko
sf-lead T Juan L Basco

"Juan is leading it to Basco."

⇒ si Juan go mamalang do Basko
T_id Juan rm_id sf-lead L Basco

"It is Juan who is leading it to Basco."

Example 2 (Identificational derivation of descriptive clauses)
Example 3 (Identificational derivation of nominal clauses)

(a) \(\text{mapia~go~tao}\) adj-good T man

"The man is good."

\(\Rightarrow\) no tao go \(\text{mapia}\) Tid man rm id adj-pos-good

"It is the man who is good."

(b) \(\text{rakoh~si~Juan}\) big T Juan

"Juan is big."

\(\Rightarrow\) si Juan go \(\text{rakoh}\) Tid Juan rm id pos-big

"It is Juan who is big."

(c) \(\text{dékkey~gori}\) very big T/that

"That is huge."

\(\Rightarrow\) naori \(\text{gori}\) go \(\text{dékkey}\) T/that rm id very big

"It is that which is huge."

Example 3 (Identificational derivation of nominal clauses)

(a) \(\text{dira~na~go~chito}\) property his T dog

"The dog is his."

\(\Rightarrow\) no chito go \(\text{dira~na}\) Tid dog rm id property his

"It is the dog that is his."
6.5 Yes-No Interrogative Derivation. This derivation is formed by the addition of the interrogative particles qan no (frequently reduced morphophonemically to qan and even to -n following words ending with the vowel a), to any indicative clause.

Intonation remains the same as for the indicative base clause. An alternate interrogative type consists only of intonation change, without the addition of the interrogative particles.

The position of the interrogative particles is variable. Examples indicate their occurrence at the end of a clause, following a Negative tagmeme, between a non-Topic Subject pronoun and a following Topic noun phrase, between a Topic pronoun and Appositional phrase and within the noun phrase of a Classificational Predicate.

\[ C \Rightarrow \text{intC} \]
\[ C \Rightarrow C + \text{qan no} \]

Examples

(1) \( \text{qinahap mo qava qo galata} \)\( \text{w} \)\( \text{alataw} \)

You did not get that basket.

\[ \Rightarrow \text{qinahap mo qava qo galatawan} \] \( \text{alatawan} \)\( \text{int} \)

Did you not get that basket?
(2) mangay ta na
sf-go T/we now
"Let us go now."

⇒ mangay ta naan
sf-go T/we now-int
"Shall we go now?"

(3) tatdo sa go chito
three T/they rm₃ dog
"There are three dogs."

⇒ tatdo sa gan no chito
three T/they int dog
"Are there three dogs?"

(4) garaavaw chito da
there-is-neg-T dog (their)
"They have no dogs."

⇒ garaava gan no go chito da
there-is-neg int T dog (their)
"Do they have no dogs?"

(5) qinahap mo galat
of-get S/you basket
"Get the basket."

⇒ qinahap mo gan no galat
of-get S/you basket
"Did you get the basket?"

(6) gapat ga kavohan go kakapet gaya
four rm₄ month T maturation r₄-at-this
"The maturing period is four months."
"Is the maturing period four months?"

6.6 Dependent Clause Derivations. In addition to the main clause in a given sentence, one or more dependent clauses may occur. These dependent clauses represent two dependent construction types, Attributive and Conjunctive.

6.6.1 Attributive Derivation.

\[ C \Rightarrow \text{atC} \]

\[ C_{\text{main}} + P (+ X) + T (+ Y) \Rightarrow C_{\text{main}} + qa + P (+ X) \]

\[ (+ Y) \]

Neg : qa \(\Rightarrow\) Aux : di

Where T exponent in the Attributive Base Clause is equivalent to the exponent of T in the main clause (see Examples 1 and 2 below), or where, in cases where Topic is unexpressed in one or both clauses, S is equivalent in both the Attributive base and main clauses (see Examples 3 and 4 below).

One of the characteristics of Attributive clauses is the use of di "negative" as a member of the class of items which expounds the pre-Predicate Auxiliary, rather than qa "negative" expounding the clause level Negative tagmeme of independent clauses.
Example 1

Main Clause (P + T : N)

\[ \text{mangay go tao} \]
"The man is going."

Attributive Clause base (P + T : N)

\[ \text{koman \ qava \ go \ tao} \]
"The man is eating."

\[ \rightarrow \text{mangay go tao \ qa \ koman} \]
"The man is going to eat."

Attributive Clause base (P + T : N + Neg)

\[ \text{koman \ gava \ go \ tao} \]
"The man is not eating."

\[ \rightarrow \text{mangay go tao \ qa \ di \ qa \ koman} \]
"The man is going but not to eat."

Example 2

Main Clause (P + S/T + L)

\[ \text{komaro \ sa \ do \ nasuli} \]
"They will leave Nasuli."
Attributive Clause base (P + S/T + L)

mangay sa do manila
sf-go T/they L Manila

"They will go to Manila."

⇒ komaro sa do nasuli ga mangay do manila
sf-depart T/they L Nasuli rm at sf-go L Manila

"They will leave Nasuli to go to Manila."

Example 3

Main Clause (P + S)

qisali na
af-return S/he

"He returned."

Attributive Clause base (P + T/S + O)

mangahes sia so bako da
sf-ask T/he 0 tobacco (their)

"He asked for their tobacco."

⇒ qisali na qa mangahes so bako da
sf-return he rm at sf-ask 0 tobacco (their)

"He returned to ask for their tobacco."

Example 4

Main Clause (P + S)

qiangay no tao
af-come S man

"The man will come."

Attributive Clause base (P + S)

tahohen no tao
whip-of S man
"The man will whip."

\[ \text{qiangay no tao qa tahohen} \]

SF-come S man rm\textsubscript{at} whip-of

"The man will come to whip (someone)."

This type of main clause plus dependent clause is structurally ambiguous with a clause containing an embedded clause as exponent of an Attributive tagmeme within a noun phrase exponent of Topic (see section 6.7 below). For example:

\[ \text{navoya ko sa Pepe qa maydiman kan Jose} \]

ST-see S/I T Pepe (rm\textsubscript{at} sf-fight with Jose)

"I saw Pepe who was fighting with Jose."

\[ \text{qinahap ko go qipangan qa nidiman mo so} \]

OF-get S/I T knife (rm\textsubscript{at} af-kill S/you 0

chito dog)

"I got the knife with which you killed the dog."

6.6.2 Conjunctive Derivation. Following the main clause of a sentence any clause may occur preceded by the clause conjunction marker \textit{gas}. The conjoined clause may be underived or derived.

Examples of main clause plus underived conjoined clause are as follows:

(a) \[ \text{nacket gas mangoyot so lokoy} \]

SF-angry and SF-pull out 0 bolo

"He was angry and pulled out a bolo."
(b) mangay gako gas kanen mo go paray
sf-go T/I and eat-of S/you T rice

"I will go and you eat the rice."

(c) nidichan koava gas nikamet na yaken
of-duck S/I-neg and of-hold S/he T/me

"I did not duck and he held me."

Clause sequences of this type (that is neither being derived) occur not only with gas "and" as the marker, but also with gan "if", ta "so", ta koan "because", and gan mana "or".

(a) mangay gako gas koman ka so paray
sf-go T/I and sf-eat T/you O rice

"I will go and you eat the rice."

(b) mangay gako gan koman ka so paray

"I will go if you eat the rice."

(c) mangay gako ta koman ka so paray

"I will go so you can eat the rice."

(d) mangay gako ta koan koman ka so paray

"I will go because you are eating the rice."

(e) mangay gako gan mana koman ka so paray

"I will go or you eat the rice."

Derived conjoined clauses are of three types, the semantic distinctions of which are not yet clear. None of
the three types has an unambiguously marked Topic phrase, leading Cottle to postulate a "neutral voice" clause type for Ivatan. To account for a similar clause type in Magindanao, Lee described a "non-focus verbal category." Present evidence for Ivatan does not indicate a definite lack of focus when these derived clause types are used, even though there are no unambiguous Topic markers. Compare the following examples in which 1(a) Object (goal) is the apparent Topic in contrast to 1(b) in which Subject (actor) is the apparent Topic.

1(a) chi

a

qket na gas kogyotana so lokoy

become-angry S/he and pull out-of S/he T bolo

na

(his)

"He became angry and pulled out his bolo."

(b) nagket gas pango

yot na so lokoy

st-angry and pull out T/he 0 bolo

"He was angry and pulled out a bolo."

The conjoined clauses in 1(a) and 1(b) above are derived respectively from the following independent base clauses 2(a) and 2(b).

6 Morris Cottle, "Neutral Voice Predication of Ivatan," (unpublished manuscript in files of Summer Institute of Linguistics, Philippines, 1963.)

7 Ernest W. Lee, "Non-focus Verbs in Magindanao," Oceanic Linguistics III (Summer, 1964), 49-57. Lee states (p. 52-53): "The non-focus verbal category contrasts with the focus verbal categories (1) in form, in the verb by a
2(a)  koqyotena        go  lokoy  na
       pull out-of-S/he  T  bolo  (his)

"He pulled out his bolo."

(b)  mangoqyot  sia  so  lokoy
      sf-pull out  T/he  0  bolo

It should also be noted that the phrases preceded by the relation marker so in l(a) and l(b) have different substitution possibilities. In l(a) so lokoy na may be replaced by a pronoun optionally followed by an Appositional phrase, for example sia go lokoy na; Topic relation marker go introduces the Appositional phrase. In l(b) no pronoun may substitute for the so phrase, and it therefore functions as an Object (see Object exponents, p.75).

The third type of derived conjoined clause is structurally similar to that illustrated in l(a) above. The only formal difference is in the affixation of the verb. Prefix ka- occurs instead of suffix -an. For example:

distinctive morpheme ka- and in the substantive phrases by the absence of a si phrase signalling a focussed item; (2) in meaning, by the action of the verb not being focused on a substantive phrase; and (3) in distribution, by restriction to subordinate clauses."

Although in Ivatan this type of clause primarily occurs in dependent constructions or in embedded clause positions, it may also occur independently, with a characteristic intonation and verb stress pattern, to indicate anger or emphasis.
The semantic difference between 3(a) and 3(b) above is not clear. Both clauses are non-specific as to time or state (completed or noncompleted) of the action. In this respect they differ from apparently similar clause types which occur embedded in Temporal phrases and in the Topic of Wh-Interrogative clauses, and are inflectable with complective or noncomplective aspect. One informant suggested that the clause with the verbal prefix ka- states an action occurring subsequent to that of the main clause, whereas the clause with the verbal suffix -an states an action occurring simultaneously with that of the main clause.

Further analysis is required in order to determine focus relationships adequately and to delineate distinguishing features between these three clause types.

A tentative formalization of the derivations is as follows:

$$ VC_{of} \Rightarrow \text{conc of} \Rightarrow \text{en} \Rightarrow \text{an, ka-} \Rightarrow \text{go} \Rightarrow \text{so, pr}_t + \text{Ap} $$
6.7 Embedded Clause Derivations. An embedded clause following the phrase attributive marker qa is translatable as a relative clause; a noun replacing embedded clause is translatable as "the one who . . . " plus a relative clause. The latter type of clause embedding may be considered to be a further derivation, by deletion of the noun Head plus relation marker, of the embedding clause plus Attributive embedded clause.

Any clause may form the base of an embedded Attributive clause (embatC) where the Head of the embedding noun phrase and Topic of the embedded base clause are equivalent. Topic is deleted from the embedded clause. Where the embedded clause is negative, the Negative tagmeme is also deleted and the negative exponent of the verb Auxiliary (di) precedes the verb. Pronouns are permuted to the pre-verb position as described above (p. 131) whenever an Auxiliary precedes the verb.

\[
\begin{align*}
VC_{sf} & \Rightarrow ConC_{sf} \\
\text{mang-} & \Rightarrow \text{pang-} \\
T/S & \Rightarrow S
\end{align*}
\]

\[
\begin{align*}
C \Rightarrow \text{embatC} \\
H_n + P(+ X) + T(+ Y) & \Rightarrow H_n + qa + P(+ X)(+ Y) \\
\text{Neg} : qa & \Rightarrow \text{Aux : di}
\end{align*}
\]
Example 1
Embedding Clause:

```
dira ni Toni qo chito qaya
property (rm po Tony) T dog (rm at-this)
```

"This dog belongs to Tony."

Embedded Clause base:

```
qinahap mo qo chito qaya
of-get S/you T dog (rm at-this)
```

"You got this dog."

```
⇒ dire ni Toni qo chito qaya qa
property (rm po Tony) T dog (rm at-this) (rm at
qinahap mo
of-get) S/you)
```

"This dog that you got belongs to Tony."

Example 2
Embedding Clause:

```
gari qo chito na
exist T dog (his)
```

"He has a dog."

Embedded Clause base:

```
navoya ko qava qo chito na
st-see S/I neg T dog (his)
```

"I have not seen his dog."

```
⇒ gari qo chito na qa qa
exist T dog (his) (rm at neg S/I rm at
navoya
st-see)
```

"He has a dog that I have not seen."
Example 3
Embedding Clause:

\[
\text{gahapen mo go chito get-of S/you T dog}
\]

"You get the dog."

Embedded Clause base:

\[
\text{diaken go chito mine T dog}
\]

"The dog is mine."

\[\Rightarrow \text{gahapen mo go chito qa diaken get-of S/you T dog (rm at mine)}\]

"You get the dog which belongs to me."

Example 4
Embedding Clause:

\[
\text{sino go ngaran mo what T name (your)}
\]

"What is your name?"

Embedded Clause base:

\[
\text{maqpanmo ko qava go ngaran mo st-know S/I neg T name (your)}
\]

"I do not know your name."

\[\Rightarrow \text{sino go ngaran mo qa di ko qa maqpanmo what T name (your)(rm at neg S/I rm at know)}\]

"What is your name that I do not know?"
Example 5
Embedding Clause:

\[
\text{mangay} \quad \text{go} \quad \text{tao} \\
\text{sf-go} \quad \text{T} \quad \text{man}
\]

"The man is going."

Embedded Clause base:

\[
\text{magolang} \quad \text{go} \quad \text{tao} \\
\text{adj-thin} \quad \text{T} \quad \text{man}
\]

"The man is thin."

\[
\Rightarrow \text{mangay} \quad \text{go} \quad \text{tao} \quad \text{qa} \quad \text{magolang} \\
\text{sf-go} \quad \text{T/I} \quad \text{man} \quad \text{rm_at} \quad \text{adj-thin}
\]

"The man who is thin is going."

A noun-replacing embedded clause (n-remC) is derivable from an attributive embedded clause by deletion of the noun Head of the embedding phrase, and the attributive relation marker qa. The Predicate of the embedded clause becomes the Head of the phrase, and may optionally be followed by the former noun Head as part of an attributive phrase.

\[H_n + qa + P (+ X)(+ Y) \Rightarrow P (+ qa + H_n)(+ X)(+ Y)\]

Example 1

\[
\text{dira} \quad \text{ni} \quad \text{Toni} \quad \text{go} \quad \text{chito} \quad \text{gaya} \\
\text{property (rm_po} \quad \text{Tony}) \quad \text{T} \quad \text{dog (rm_at this)}
\]

\[
\text{qa} \quad \text{ginahap} \quad \text{mo} \\
\text{rm_at of-get S/you}
\]

"This dog that you got belongs to Tony."
Example 2

qari exist T chito na qa di ko qa navoya st-see

"He has a dog that I have not seen."

Example 3

navoya st-see S/I T manok qawri ga nidiman mo S/youb

"I saw that chicken you killed."

Example 4

mangay sf-go T man (rm adj-thin) ga magolang

"The man who is thin is going."
"The thin man is going."

"What man are you beating?"

"What are you beating?"

The clause types described above as not having an unambiguously marked Topic also occur embedded in the Head of some Topic phrases. Notice the following examples:

"Why are you beating (something)?"

"Why are you beating Juan?"

"Why are you beating me?"

"Why are you beating the man?"

"Why did you beat the man?"
"When did you beat Juan?"

"When will you beat me?"

Embedded clauses within Temporal phrases also have the structure illustrated in the last two examples above.

For example:

"When he is angry the man will kill him."

"When you beat Juan . . . "
BIBLIOGRAPHY


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