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PREDICATE AND ARGUMENT
IN
RENGAO GRAMMAR

Kenneth Gregerson

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and
THE UNIVERSITY OF TEXAS AT ARLINGTON

1979
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<tr>
<td>address</td>
<td>addressee (II)</td>
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<tr>
<td>ADVERS</td>
<td>adverstive</td>
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<td>AFFIRM</td>
<td>affirmation emphatic</td>
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<td>AG</td>
<td>agent</td>
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<td>anim</td>
<td>animate</td>
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<td>antecedent</td>
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<td>approximate</td>
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<td>ARG</td>
<td>argument</td>
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<td>BEN</td>
<td>benefactive</td>
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<td>CAUSE</td>
<td>causative</td>
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<td>CIRCUM</td>
<td>circumstance</td>
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<td>COMIT</td>
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<td>completion</td>
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<td>complement marker</td>
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<td>CONCESS</td>
<td>concessive</td>
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<td>confirm</td>
<td>confirmation</td>
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<td>CONJUNC, CONJ</td>
<td>conjunction</td>
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<td>conseq</td>
<td>consequent</td>
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<td>DECL</td>
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<td>DISJUNC</td>
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<td>dl</td>
<td>dual</td>
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<td>DUR</td>
<td>durative</td>
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<td>extreme distal</td>
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<td>goal</td>
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<td>grfa</td>
<td>grandfather</td>
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<td>grmo</td>
<td>grandmother</td>
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<td>hearer</td>
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<td>honorific</td>
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<td>IDENT</td>
<td>identification</td>
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<td>Symbol</td>
<td>Definition</td>
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<td>------------------------------------------------</td>
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<td>S_H</td>
<td>hypersentence</td>
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<td>S_0</td>
<td>highest sentence, speech act construction</td>
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<td>Sp(k)</td>
<td>speaker (I)</td>
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<td>subs</td>
<td>subsequent</td>
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<td>SUR</td>
<td>surprise</td>
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<tr>
<td>T</td>
<td>time</td>
</tr>
<tr>
<td>T_0</td>
<td>time of the speech act</td>
</tr>
<tr>
<td>TSA</td>
<td>time of the speech act</td>
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<td>V</td>
<td>verb</td>
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Preface

The purpose of this study is twofold: first, to contribute to the deepening of our knowledge of the little-known field of Mon-Khmer linguistics; second, to explore and employ some suggestions that have been offered in the last decade for formulating the semantic bases of grammar. Although this study, like many others, must inevitably be something of a "period piece," it is hoped that the topics dealt with are sufficiently fundamental and that the Rengao data is well enough illustrated to be of value to students interested in the linguistics of Southeast Asia.

As reviewed in 1.1 Mon-Khmer linguistic research at present is recognized still to be at a rudimentary stage in which often problems of an observational nature, to say nothing of an explanatory one, remain to be clarified. The task of simply discovering what there is is still a massive one in this area and cannot be minimized as we move towards discovering what to make of what there is. Thus, while I have not attempted to construct a reference grammar here, I consider the presentation of data an important part of the contribution of this selective outline of some aspects of Rengao grammar.

As to the method employed and the results which have emerged in this research, the assumption throughout is well expressed in Chafe's (1970:346) words that "a workable theory of semantic structure is indispensable to the theory of language as a whole" [emphasis mine, KG]. Meaning has come back into fashion again, and for those of us who always used to miss it, the current atmosphere in linguistics provides a welcome encouragement to pursue approaches which take semantics into account. I have, therefore, consciously sought to explore Rengao grammar "from the inside out." In short I have concerned myself with formulating the patterns of content first and then have related these to overt expression whether this revealed the patterns of the latter or not. Obviously, however, they must ultimately both be matters for linguistic concern.

Section 1.2 refers to recent suggestions that "deep structure" be formulated in terms of elementary notions familiar in symbolic logic. As linguists have looked at language more intensively through the years, there is a discernible tendency towards a reduction of abstract theoretical entities. This, of course, is consistent with scientific progress in general. It is not surprising then that, faced with semantic analysis, workers in that area have come to employ as basic a set of elements as possible, lest the combination of complex tools and complex task
render the whole effort hopeless from the outset. Term and relation or argument and predicate are the fundamental concepts used here, following Bach, McCawley, Fillmore, Lakoff, and Grimes. This simple framework has greatly clarified my own understanding of how Rengao is used and has, I believe, rendered its exposition more straightforward.

Throughout the study I have maintained with Yngve (1970:567) that "linguistics is the scientific study of how people use language to communicate" [emphasis mine, KG]. Section 2 interprets the speech act as a communication situation in which the central relationship between speaker, addressee, and message is determined by a speech act predicate. Rather than talking about "performative" or "hypersenence" verbs as Ross and Sadock did respectively, I have chosen to cast them in the overall predicate-argument framework in which the participants are viewed as arguments, and mood is construed as a predicate of the speech act. Though this is not a radical departure from what Ross and Sadock did, it seems to me more consistent than talking about "abstract" verbs and NP's—which strike me as contradictions in terms since the latter are surface categories and therefore at the shallow end of abstraction.

Besides suggesting that speech act predicates go beyond traditional declarative, imperative, etc., to include salutatory, imprecatory, and undoubtedly many more, I have explored phenomena that relate to the arguments of the speech act. For example, in 2.6.1 explicit reference to the addressee (i.e., vocative) is discussed; in 2.6.2 the place of status relationships between speaker and addressee is explored; and in 2.7 the question of inherent reference to location and time of the speech act is described.

To my knowledge, no full-scale work has yet focused on problems of aspect and modality in any Mon-Khmer language. What I have detailed in Rengao are only the beginnings of a thorough understanding of how predicates act as operators on propositions (in this case, clauses) and how these are realized as preverbs, postverbs, or sentence particles in surface grammar. Following up a suggestion by Newmeyer (see sect. 4), I have described how the predicate CAUSE relates to distinctions between "root" and "epistemic" modals, but I have concluded that it is not the mere presence of CAUSE that is crucial, but rather the nature of the content in the arguments (especially the source argument) that is the controlling factor.

In section 5 some basic relationships are presented which are usually associated with the internal composition of the clause or simple sentence. These relationships are those which have been referred to as tagmemes, cases, or roles. The presence of functional categories in Rengao that parallel those
recognized in other widely diverse languages contributes toward an understanding of universal aspects of natural language. Though I have paid a good deal of attention to what Fillmore has said, I have diverged in several ways. One difference is that equative clauses are posited as possessing two identical roles, which contradicts Fillmore's assumptions that two of the same role types may not cooccur in the same clause. A further difference (not developed here) is that the role types are not, in my opinion, best conceived of as "unanalyzable entities" as Fillmore did. I think that much of the indeterminacy associated with assigning a role designation to a referent derives from ill-defined notions of the ultimate components of the "elementary perceptions" that role types are said to reflect.

It has been illustrated throughout this study that there is a distinction between role types and the subject or topic, but that the former often determines the latter unless over-riding requirements of the discourse are introduced.

In section 6 reciprocal constructions are treated as a special subset of conjoined structures. Presuppositions associated with various sentential predicates are noted. Again topicalization constraints are referred to as the basis for some of these predicates turning up at the head of the entire surface sentence or between clauses.

Comments on the transcription used in the study are to be found in appendix A. These include summaries of Rengao segmental phonemes, segment structure conditions, and glides. Also summarized are sequence structure conditions of both words and syllables.

The purpose of appendix B is to outline the overt syntactic constituents of the noun phrase in Rengao which includes quantification, classification, nouns and pronouns, phrase qualification, and orientation.

I wish to express my gratitude especially to Professor Laurence C. Thompson, who since the beginning of my graduate student days has gone beyond the call of duty to be both a teacher and a friend. The present study owes much to his early encouragement to me to study Vietnamese and Mon-Khmer linguistics in general.

I am also much indebted to Professor Joseph Cooke for his advice and encouragement during the original writing of this study in its dissertation form and to Professors Heles Contreras and Harold Schiffman for their comments, reactions, and general good humor throughout that period.

In addition I am grateful to Dr. H. B. Jacobini and to the Center for Vietnamese Studies at Southern Illinois University for
the provision of a research fellowship during the original period of writing up this material. National Science Foundation grant GS-1605 to the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma made possible the assembling of a computer-sorted concordance of Rengao text material that was an invaluable source of insight during this research.

A heartfelt word of thanks is due my wife Marilyn, who beyond the large enough task of being homemaker and mother, actively collaborated in our research on Rengao language and culture. I also owe much to colleagues of the Summer Institute of Linguistics for having both taught me and encouraged me to learn. Besides these, my thanks go to our Rengao friends, Ir, Khur, Pen, Nem, and Hyit who shared their lives with us and taught us much.

This study emphasizes meaning as an integral component of language. Accordingly, in acknowledging those who have made this work possible, I consider it especially fitting that I give thanks to our Lord Himself, without whom nothing makes sense.
TRIBES of SOUTHERN VIETNAM

LEGEND
Tribal Boundaries:
Tribal Areas: BAHNAR
Place Names: Banmenthuot
Northern Tribal Resettlements:
MĀṌṆ, near Banmenthuot, etc.
MU'OṌNG, near Banmenthuot, etc.
WHITE TAI, near Dalat, etc.
BLACK TAI, near Dalat, etc.
NÚṌṆ, near Dalat, etc.
THŌ, near Dalat, etc.
1 Introduction

1.1 Mon-Khmer Linguistics

1.1.1 Austroasiatic Languages. Mon-Khmer designates a group of Austroasiatic languages found in Southeast Asia. Mon-Khmer has been subdivided as follows (Thomas and Headley 1970):

I. Pearic
  1. Pear (Kompong Thom)
  2. Northern Samre (Siem Reap)
  3. Southern Samre, Southern Chong (Trat)
  4. Suoy (Kompong Speu)
  5. Sa-och, Northern Chong (Lo, Hep)
  6. Angrok
  7. Khamen Boran

II. Khmer

III. Bahnaric
  A. Central Bahnaric
    1. Bahnar
    2. Alak
    3. Tampuon, Lamam
  B. North Bahnaric
    1. Rengao (Reungao)
    2. Sedang (Roteang)
    3. Halang
    4. Jeh (Die)
    5. Mndm (Bdnam)
    6. Kayong (Cagiuong)
    7. Hre (Davak)
    8. Todrah
    9. Cua
    10. Takua
    11. Kasseng
  C. West Bahnaric
    1. Loven (Jru)
    2. Nyaheun, Prou
    3. Brao (Laveh)
    4. Sapuan
    5. Cheng (Jeng)
    6. Sou (Xu)
    7. Sork (Sok, Xooc)
    8. Oy, The
INTRODUCTION

D. South Bahnaric
   1. Stieng
   2. Central & Southern Mnong
   3. Eastern Mnong (Gar, Chl, Kuanh, Rolom)
   4. Kho
   5. Chrau, Tamun (Jro)

IV. Katuic
   1. Katu (Low Katu)
   2. Kantu (High Katu), Phuong
   3. Bru (Kaleu, Mangkong, Tri)
   4. So (Chali)
   5. Pacoh
   6. Ta'oih, Tong, Ong, In, Yir
   7. Ngeq, Nkriang, Lor, Klor (Kha Klom)
   8. Kataang
   9. Kuy
10. Leun
11. Salam
12. Tareng

V. Khmuic
   1. Khmu' (T'eng, Cau, Clau, Tayhay)
   2. Mal (T'in)
   3. Mrabri, Kamlua'
   4. Yumbrí
   5. Hat (Tayhat)
   6. Puoc (Puhooc)
   7. Phong

VI. Palaungic
   1. Rumai (Palaung)
   2. Ryang
   3. Danaw
   4. Wa, Kawa, La, Vu
   5. Lamet, Angku, Tai-Loi, Amok
   6. P'u-man
   7. Pou Ma
   8. Khao (Khang Af), Kha Bit, Kha Quang Lime

VII. Mang

VIII. Monic
   1. Mon
   2. Niakuol

IX. Khasi

X. Viet-Muong
   1. Thavung (Phon Soung), Kha Tong Luang
   2. Pakatan, Kha Bo (Muong Ben), Kha Nam Om
   3. Hareme, Kha Phong
INTRODUCTION

4. Arem
5. Poong, Katiam Pong Houk, Hung
6. Khong Kheng
7. Toum
8. May, Rúc, Sach, Kha Mū Gia, Tac Cui
9. Mường, Nguyễn
10. Vietnamese

XI. Jahaic (Semang)
1. Kenisiw
2. Kintak Bong
3. Jahaï
4. Menriq
5. Batek
6. Che'wong

XII. Senoic (Sakai)
1. Lanoh
2. Temiar
3. Semai
4. Jah Hut

XIII. Semelaic (South Senoi)
1. Mah Meri
2. Semelai
3. Thoq
4. Smaq Bri

This scheme must be modified to include an Aslian branch to account for the three varieties of Mon-Khmer speech communities on the Malay Peninsula. Thomas (personal communication) also speculates on the regrouping of Bahnar of South Vietnam with Tampuan (Lamam) of Cambodia to form an Eastern Bahnaric subgroup. Further he considers Cua and Takua as a possible Eastern North Bahnaric cluster.

The present study focuses on the Rengao (also written as Rangao, Reungao, Rongao), a North Bahnaric linguistic group numbering some ten thousand to fifteen thousand people. They live in Kontum province in the Central Highlands of South Vietnam where their territory extends from Kontum City west to the Laotian border (see the map).

1.1.2 Research. Work on Mon-Khmer languages dates from the middle of the nineteenth century as a part of efforts to piece together a general picture of the linguistic relationships throughout both mainland and oceanic Southeast Asia. These early guesses at language affinities in this part of the world are the work of such writers as Logan (1856), Forbes (1881), Muller (1880), and Kuhn (1889). As noted by Thomas (1964), it was Wilhelm Schmidt, in his Grundzuge einer Lautlehre der Mon-Khmer Sprachen (1905), and his "Les peuples
Mon-Khmers" (1907-08), who can really be said to have laid the foundations (however insecure) of Mon-Khmer and Austronesian linguistics. Since its beginnings, Mon-Khmer linguistics has leaned heavily toward comparative studies with an inevitable emphasis on phonology and vocabulary collecting. Because the important issues at stake in these historical reconstructions remain far from settled, they have motivated such work (to mention a few) as Piat (1962), Reynaud (1962), Thomas (1960, 1966), Haudricourt (1954), and Smith (1972). One of the most interesting aspects of current research is the increasing evidence that Viet-Muong (including Vietnamese, Muong, and certain other closely related languages of North Vietnam) may be considered a valid Mon-Khmer subgroup (Thomas and Headley 1970: 404).

In the realm of grammatical description, while some have been of a comparative nature (e.g., Henderson 1965; Holmer and others in Shorto 1963; Martini 1956), a number of single-language grammatical studies have also appeared. Early grammatical studies are scant. In fact, until quite recently the only major grammar of Khmer (Cambodian), the most well-known Mon-Khmer language, has been Georges Maspero's Grammaire de la langue Khmère dating from 1915. There have been other bits and pieces published since then by Martini. Huffman (1967:8) notes, "it is surprising that no modern structural grammar of Cambodian, such as that of Richard B. Noss for Thai, Robert B. Jones for Karen, and Laurence Thompson for Vietnamese has been published."

"An Outline of Cambodian Grammar" (1967), constructed along item-and-arrangement lines represents Huffman's contribution towards fulfilling the need he recognized for a renewed investigation of Khmer grammar. The following year Jacob (1968) published An Introduction to Cambodian, which combines a description of the language with language drills. Jenner (1969) is the most recent grammatical study of Khmer known to me.

The minority Mon-Khmer languages of Thailand, Cambodia, Laos, and Vietnam, however, are much less well-known. Even so, perhaps more work has been done lately on some of these languages than has been accomplished for Khmer. Specifically, I refer to the Bahnärıc and Katuic subgroups of Mon-Khmer to be found in South Vietnam. The bulk of this research has been done by the Summer Institute of Linguistics in the last decade or so and has been reported in a monograph series known as Mon-Khmer Studies and numerous other journals. Of these studies, the only full-fledged grammars of Vietnam minority Mon-Khmer languages are those of Thomas (1971) on Chrau and Smith (to appear) on Sedang. Prior to the work just outlined among ethnic minority groups of Vietnam, Phillips (1962) had investigated certain phonological features of several Mon-Khmer
languages, and Smalley (1954) had published a phonological study of a Mon-Khmer language of Vietnam and a grammar of Khmuq, a Mon-Khmer language of Laos. Manley (1972) represents field research on Sre, a South Bahnaric Mon-Khmer language of Vietnam, presented in a Fillmorean case-type grammar. For a general description of linguistic work done up to a decade ago in Vietnam see Thompson and Thomas (1968).

Previous research on the Rengao is due, to my knowledge, solely to Kemlin during the French colonial period. His work was ethnographical and included "Rites agraires des Rengao" (1909-10), "Les Songes et leur interprétation chez les Reungao" (1910), and "Alliances chez les Reungao" (1917). Linguistic studies are not to be found at all. While sets of lexical items have appeared in various comparative studies (e.g., H. Maspero 1912; Smith, to appear), no dictionary of Rengao was available prior to the field work undertaken by my wife and me in 1968. A manuscript dictionary currently containing something over 4,500 entries has been compiled (Gregerson, K. J., M. J. Gregerson, and Andre Ir. 1969) A body of oral literature has been taped and translated, and about 70,000 words of it have been computer-sorted into a concordance format through grant (GS-1605) by the National Science Foundation to the Summer Institute of Linguistics. The present study represents an initial inquiry into the grammatical aspects of Rengao structure and was presented as a Ph.D. dissertation at the University of Washington in 1971. This current version, with but minor corrections, retains the content of the original work. While this leaves one open to potential criticism of not being completely up to date, the contemporary state of flux in linguistic theory makes such classic models as Generative Semantics at least as serviceable as other more dimly perceived proposals for the future. In any case, considering the scarcity of published studies on Mon-Khmer languages, it is hoped that, regardless of vintage, this study will be useful to fellow workers in this linguistic area.

1.2 Theoretical Preliminaries

The history of the theory of grammar provides ample evidence that the role accorded to something called meaning has profound consequences for the entire character of the theory. For example, views on the place of meaning identifiable during the Bloomfieldian era in linguistics seem to have been (a) meaning and form are not strictly partitioned, (b) meaning is rigorously subordinated to form, (c) meaning is an explicitly acknowledged counterpart of form. Position (a) was usually the identified villain lurking in "traditional grammar" which identified nouns as the names of persons, places, and things while at the same time failing rigorously to provide (usually
distributional) formal criteria for the identification of grammatical classes. Position (b) was found in varying degrees of severity. Fries (1954:61) said, "Meaning of some kind and of some degree always and inevitably constitutes part of the framework in which we operate" and, also (1952:203): "Structures do signal meanings...; and these meanings must be described. The meanings, however, cannot serve successfully to identify and distinguish the structures." Fries's position is that meaning is inevitable, and that at least a modicum of meaning (i.e., differential) is a practical reality in linguistic investigation. Trager and Smith (1951:68) seem to have represented the extreme position when they said, "The procedures for syntactic analysis do not differ from those already used. With the phonology completely established, and the morphological analysis completed, the syntax of a language like English can be constructed objectively, without the intervention of translation meaning or any resort to metalinguistic phenomena." For them, questions of semantics were given a place in the world but they were outside of linguistics proper ("micro-linguistics").

While an increased preoccupation with formalism in linguistics during the forties and fifties seems to have tended to reduce the status of meaning, there were voices of protest to be heard. They reflect position (c). Haugen (1951:359) observed that in contrast to Hjelmslev, for example, "Most American metalinguists do their utmost to shun this aspect of language meaning." He went on (1951:362) to complain that

The minimizing of meaning as a factor in linguistic description was at first a healthy reaction against the misuse of meaning in establishing linguistic categories, but it has now become almost a fetish with some linguists. It is curious to see how those who eliminate meaning have brought it back under the covert disguise of distributions.

Fowler (1952:509) in a review of Harris's work, objected that "it is this prime criterion—the additional element of function or of meaning—which Harris would put aside in favor of 'distributional investigations'. Until it is brought back and placed in first position, the job simply cannot be done."

Pike attempted to resolve the apparent contradiction in Bloomfield's pronouncement that linguistic elements are defined solely in terms of form, while at the same time holding that forms cannot be separated from their meanings. Pike (1954:74) assessed the situation by saying,

The answer seems to me to be that Bloomfield overstated his case in emphasizing two points: (1) that 'we must
start from forms and not from meanings'... and (2) that 'to define this (or any other meaning) exactly lies beyond the domain of linguistics.' ...In our view, however, we reject both the start from meaning and the start from pure form, by insisting on treating language as a form-meaning composite, and by insisting on the necessity of working with both of them from the beginning, and of keeping both of them in our definitions. We grant Bloomfield's second protest, that meanings cannot be known exactly, but deny his conclusion—that, since meanings cannot be known exactly, they cannot be utilized in definitions of sentence types....

The roots of modern generative transformational grammar appear to be planted in the soil of assumption (b) also. Chomsky (1955:149-50) construed the pair test, which has been regarded by many as a way of getting at the most minimal contrasts in meaning, to be a nonsemantic, purely operational device reflecting intuition, not meaning. He said,

The study of meaning is an essential task of linguistics. It is certainly important to find some way of describing language in use. However, this is not the study of linguistic form. When these parallel studies are sufficiently advanced, it will be possible to explore the many indisputable connections between them. The important thing to remember in constructing a theory of linguistic form is that no matter what difficulties beset this endeavor, these difficulties in themselves do not indicate that this theory should be based on meaning or any other given notion...we are forced to conclude that at least at the present stage of our knowledge, the theory of linguistic form does not have semantic foundations.

Consistent with his views, Chomsky's transformational grammar in 1957 was a device for generating formal syntactic objects, not semantic ones. That some transformations had semantic consequences (i.e., changed meaning) while others did not was of rather marginal interest. Revision of the model to include a "semantic component" (cf. Katz and Fodor 1963; Katz and Postal 1964) brought about a reexamination of the syntactic component resulting in the hypothesis that transformations always preserve meaning. In his Aspects model, Chomsky (1965) consequently revises the organization of the base to do away with generalized transformations since they obviously introduce meaning-bearing elements. Thus the base comes to possess the recursive function of embedding. Most crucially, however, the base now enjoys the best of both worlds, for it is a formal (syntactic) entity, yet it somehow also expresses content as well. By this move Chomsky seems to
have provided semantics with a foothold in form. The place accorded to whatever is left as a domain for "pure" semantics is now definitely an ancillary "interpretive" one.

Problems arise, however, as to what semantic information is to be specified in the formal semantic representations of the base and what is to appear in the separate interpretive component. Chomsky wishes to distinguish between the two sentences

(1) The boy may frighten sincerity
(2) Sincerity may frighten the boy

He notes (1965:78) that "a priori there is no way to decide whether the burden of presentation should fall on the syntactic or semantic component." In the end, however, his decision is to equip the syntactic component to "operate in terms of selectional restrictions involving such categories as animateness and abstractness," which will distinguish syntactically between (1) and (2). The much more slippery notion of "degree of grammaticalness" is allocated to the semantic component. The impression grows that any aspects of semantics that can be clearly formulated tend to get incorporated into the syntactic component, while the vague ones are relegated to the semantic component.

In 1970(57-58) Chomsky reiterated his original skepticism about semantics:

A central idea of much of structural linguistics was that the formal devices of language should be studied independently of their use. The earliest work in transformational generative grammar took over a version of this thesis, as a working hypothesis. I think it has been a fruitful hypothesis. It seems that grammars contain a substructure of perfectly formal rules operating on phrase-markers in narrowly circumscribed ways. Not only are there rules independent of meaning or sound in their functions, but it may also be that the choice of these devices by the language-learner (i.e., the choice of the grammar on the basis of data) may be independent, to a significant extent, of conditions of meaning and use.

However,

...The study of language form will ultimately find its place in a broader framework that will incorporate consideration of meaning and use...These questions have been disregarded for far too long, and the study of language can surely be advanced and enriched by serious concern for these topics...

Recent research on things semantic has revolved around two
major identifiable positions. Interpretive semantics maintains the traditional separatist tendency which seems to give priority to syntax, but at the same time attempts actually to formulate some rules of semantics and give some flesh to the heretofore ethereal semantic component. It is not surprising that from this quarter comes a questioning of the meaning-preserving nature of transformations (Jackendoff 1969). Generative semantics (cf. Lakoff 1971), on the other hand, reflects a "joiner" rather than a "splitter" attitude in which semantics is in effect swallowed up into syntax where it is identified with deep structure itself. This amounts to a great leap of faith, for in effect it seems to imply a commitment that either both semantics and syntax are amenable to formal representation or neither is. Naturally enough this position would tend to accept the meaning-preserving nature of transformations, though Lakoff apparently came to consider the whole issue irrelevant within a later framework (Partee 1969:15, footnote 9).

Chomsky's (1969:56) general appraisal of generative semantics in contrast to his own interpretive position is that...

...in the few areas of substantive differences, generative semantics has been taking the wrong course. But to a certain extent, the differences between these two approaches are hardly more than notational, hence of no serious concern.

Chomsky's fundamental grievance against generative semantics was that he felt it to be an unconstrained theory, vaguely formulated and sailing in limitless waters. This can be seen, for example, in his objections to the enriching of the theory by adding "global derivational constraints" and to the open-endedness of trying to formulate lexical insertion in such a way as to replace unique phrase markers.

While the notion that generative semantics and the Chomskian "extended standard theory" are only notational variants seems partially true, it also seems unquestionable that Chomsky's classic stance explicitly calls for distributing semantic representation, while generative semantics insists that it be consolidated. This is, I think, a real difference. As a consequence thereof, Chomsky has a built-in escape valve for recalcitrant semantic material (e.g., presupposition, focus, reference) such that it can be shunted to an independent realm of the grammar for later investigation. The generative semanticist, on the other hand, appears to have painted himself into a corner where he must account at the outset for a variety of semantic factors. Generative semantics is of necessity faced with the task of semantic representation. While this position is hazardous, it has intrinsic motivation for seriously assaulting the problems of formulating aspects of meaning rather
than putting them aside until we are all more enlightened. Perhaps the study of semantics has had little attention in linguistics just because of a general lack of willingness to abandon the tidy position that syntax and semantics are separate. Of course, Halle-type arguments against "autonomous syntax" (McCawley 1968c:165ff.; Newmeyer 1970a) imply further that formal motivations, not just methodological strategy, are involved here.

To meet the challenge of formal characterization of semantic features, a number of investigators have turned to logic. With reference to the idea of a universal base, Bach (1968:121) said,

The base component suggested here looks in some ways very much like the logical systems familiar from the work of modern logicians like Rudolf Carnap, Hans Reichenbach, and others. In particular, such systems do not have any subdivision of 'lexical items' into nouns, verbs, and adjectives. Much more basic is the distinction between variables, names, and general 'predicates' which can be replaced with respect to the number of terms that can occur as their arguments. It should not be surprising that a system of universal base rules should turn out to be very close to such systems, which are after all the result of analyzing the most basic conceptual relationships that exist in natural languages.

McCawley (1968c:138) suggested that "the semantic representation of sentences should involve not the feature-like 'markers' of Katz and Fodor (1963) but rather predicates (in the symbolic logician's sense of the term)." Later, in line with his rejection of deep structure independent of semantics, McCawley (1968c:167) said,

...semantic representations involve constituents which are grouped together by parentheses and thus can be represented by trees. Since the categories of the operations and operands which appear in symbolic logic (which I hypothesize to supply the basis for semantic representation) correspond to syntactic categories, semantic representations can be regarded as trees labeled with syntactic category symbols.

Fillmore's (1968b) use of the predicate calculus as a model for describing lexical entries for verbs, and Langendoen's (1969) very similar work relied on similar insights from logic.

Longacre (1970:783) has suggested a scheme which views sentence structure in terms of a sentential calculus paralleled by clause structure in terms of a predicate calculus.
Grimes (1975) identified a model of language which he termed "predicate grammar." In this view, all factors where choice is involved (i.e., semantics) are grouped together in the base, and each alternative is represented in the grammar as a predicate associated with one or more arguments. Then conditions on the way predicates may be linked through their arguments yield tree-like configurations. Collections of these trees, in turn, constitute a discourse.

Saltarelli (1970) has called for a "propositional generative grammar." He says,

Chomsky's interpretive theory supports the centrality of syntax. Lakoff's 'basic' theory also operates within a system of syntactic predicates (such as sequential and hierarchical order), although it recognizes that semantics plays a central role in syntax. 'Propositional' theory claims that semantics (the underlying propositional representation of utterances) is central to language, with syntax-phonology as its manifestations in a time-space dimension.

In Linguistics and Natural Logic (1970:18) G. Lakoff makes the following statement:

Generative semantics claims that the underlying grammatical structure of a sentence is the logical form of that sentence, and consequently that the rules relating logical form to surface form are exactly the rules of grammar.

He says further (1970:126), "Natural logic, taken together with linguistics, is the empirical study of the nature of human language and human reasoning," and then finally, (p. 128),

Natural logic is a theory, a theory about the logical structure of natural language sentences and the regularities governing the notion of a valid argument for reasoning in natural language. That is, it is a theory about the human mind, not a theory about the universe.

Another approach to linguistic structure was presented by Chafe (1970). While explicitly committed to the primacy of semantics in explaining systems of natural language, he was skeptical of the role of logical notions in accomplishing these ends. He says (p. 351),

...there has been a recent tendency to regard semantic structure, in the guise of a 'deeper' kind of 'deep structure' than that proposed by Chomsky, as a 'highly abstract' construct akin to the constructs of symbolic logic. Such a view, it seems to me, loses sight of the direct tie which must exist between semantic structure and the observable facts of meaning, by virtue of which
the abstractness of semantic structure is, on the contrary, minimal. Semantics and phonetics, I would say, constitute the two least abstract components of language, each being most closely related to its own variety of data. While it has been suggested that the deepest deep structure consists of nothing but logical predications, one embedded within another, I cannot see that this approach provides the kind of model that can be related directly to the messages which language conveys. The notion of predicate in the logical sense, for example, is not rich enough to account for the various meaningful relations between semantic nouns and verbs for which I have tried to provide a framework...however, it will surely be of interest to see what adequacies and inadequacies arise from a variety of hypotheses.

The present study of Rengao grammar will reflect many of these current semantically-oriented interests, and in some cases draw on the available formalism to be found in them. The framework of predicates and arguments will be employed throughout. Though I will not take the position that they are the only structures relevant to semantic formulations, neither do I share Chafe's skepticism about their general usefulness. Clearly, as Chafe implies, much more work must be done in applying concepts of this nature to languages before concrete proposals can be offered as to modification of the approach or substitution of more adequate alternatives.
2 Predicates and Participants of the Speech Act

2.1 The Speech Act

Natural language takes place within a psychological and sociological matrix. It is fundamentally an instrument of human communication. In spite of this obvious fact, linguists have been known to circumscribe arbitrarily the area of their investigations in ways which contradict the very nature of their subject. The general sentence-oriented tendency evident in much recent linguistics is an example of this unnaturally imposed limitation (for objections see Sanders 1969). Moreover, just as an adequate grammar must explain the total discourse, so must it account for the participants in the communication act. In this regard, clearly involved in the speech situation are the speaker, who initiates the speech act, the addressee, to whom the speech is directed, the message conveyed by the speech (including things referred to and things presupposed), and the speaker's intentions (i.e., whether to convey information, to receive information, to impose his will, etc.). The latter aspects are those that have traditionally been described as mood or sentence type.

2.2 Models for the Speech Act

There have been a number of proposals on how best to represent mood. Traditionally, classifications of sentences into types has been common. Katz and Postal (1964) set up extra-propositional markers or dummy nodes which trigger question and imperative transformations. Seuren (1969) noted the similarity of these triggering elements to logical operators and suggested a system which distinguishes nucleus from operators. Thus his first two deep structure rules are:

1. a. sentence $\rightarrow$ sentence qualifier + proposition
   
   b. sentence qualifier $\rightarrow$ \{assertion, question, imperative, suggestion\}

J. L. Austin (1962) noted a class of sentences which do not represent descriptive statements that are falsifiable in the normal sense, but rather are intimately connected with the doing of an action. He cited:

2. a. I name this ship the Queen Elizabeth (as uttered
when christening a ship).

b. Shut it.

c. I order you to shut it.

Austin observed concerning mood that imperative statement such as (2)b could be expressed as an explicit performatives (2)c.

Pursuing this line of inquiry, Ross (1970:223) said of declarative sentences that they "must be analyzed as being implicit performatives, and must be derived from deep structure containing an explicitly represented performatives main verb." Given the sentence:

(3) Prices slumped.

Ross (1970:248) posited the abstract underlying representation in (4) below. While admittedly speculative, Ross's aim was to provide "a uniform deep structural configuration on which to base the semantic notion speech act." R. Lakoff's (1968: 157ff.) treatment of "abstract verbs" in Latin represented substantially the same approach as Ross's, including not only representations for mood, but also modality and purpose.

(4)

Sadock (1969:303) has presented similar proposals with the assumption that an abstract underlying proposition whose subject and object are noun phrases referring to the speaker and the addressee and whose verb determines the sentence type of the sentence, occurs in the deep structure of every sentence of every language...I will refer to such abstract underlying propositions as 'hypersentences'.

He proposed the following as a generalized representation for these hypersentences:
(5) 

\[ S \rightarrow S_H \rightarrow NP \sim \sim V \sim \sim NP \sim \sim N \]

\[ \langle \text{(speaker)} \rangle \quad \langle \text{(M)} \rangle \quad \langle \text{(addressee)} \rangle \]

where \( S_H \) designates a hypersentence, \( M \) the sentence-type marking verb, and \( N \) the proposition (PROP).

Having looked at these general approaches to the representation of the speech act, we may now partially restate the notion of mood or sentence type in \textit{predicate} (PRED) and \textit{argument} (ARG) terms as follows:

(6) 

\[ S \rightarrow \text{PRED} \rightarrow \text{Mood} \]

\[ \text{ARG} - I \quad \langle \text{speaker} \rangle \]

\[ \text{ARG} - II \quad \langle \text{addressee} \rangle \]

\[ \text{ARG} - III \quad \text{PROP(osition)} \]

For the present, the initial dominating element is represented as \( S \), but it is not merely to be construed as \textit{sentence} in any traditional sense and could just as well be \( F \) (form) as Grimes (1975) suggested for elements of a discourse grammar. Various predicates of mood determine as their arguments the participants of the speech act, where I is the speaker, II is the addressee, and III designates the message itself including the main proposition(s) and their identifying propositions.

2.3 The Predicates of Mood in Rengao

For Rengao we may identify at least the following sentence-type determiners as predicates of the speech act:

(7) 

\textbf{DECLARATIVE}

\textbf{IMPERATIVE} (commands to act)

\textbf{INTERROGATIVE} (commands to say)

\textbf{SALUTATORY}

\textbf{IMPRECATORY}

\textbf{CONCESSIVE}

2.3.1 \textbf{Declarative} (DECL). Perhaps the most common type of communicative expression is that of making a \textit{statement}. Consider the sentence

(8) \textit{yaq krwah uq daak}

\textit{grmo Krwah drink water}
Mrs. Krwah drank the water.

That such sentences have been considered somehow basic from the standpoint of logic or language learning is probably not unrelated to the fact that in many languages no overt morpheme signals their role as statements. We may provide a partial semantic structure which contains the predicate DECL as follows,

\[
\begin{align*}
(9) \quad S & \quad \text{PRED} \quad \text{DECL} \\
& \quad \text{ARG-I} \\
& \quad \text{ARG-II} \\
& \quad \text{ARG-III} \quad \text{PROP} \quad \text{PRED} \quad \text{uq} \quad \text{drink} \\
& \quad \text{ARG} \quad x \\
& \quad \text{ARG} \quad y \\
& \quad \text{PROP} \quad \text{PRED} \quad \text{IDENT} \text{(ification)} \\
& \quad \text{ARG} \quad x \\
& \quad \text{ARG} \quad \text{yaq krwah Mrs. Krwah} \\
& \quad \text{PROP} \quad \text{PRED} \quad \text{IDENT} \\
& \quad \text{ARG} \quad y \\
& \quad \text{ARG} \quad \text{daak water}
\end{align*}
\]

Equivalently the same sentence may be expressed as

\[
\begin{align*}
(10) \quad \text{DECL I, II, } ( & \quad \text{uq(x,y), IDENT(x,yaq krwah), IDENT(y,daak))} \\
& \quad \text{III}
\end{align*}
\]

which may be read roughly for present purposes as "I the speaker (I) DECLARE to you the addressee(s) (II) the message (III) that x \text{ uq drank} y and that x is identified as being \text{yaq krwah Mrs. Krwah} and y is identified as being \text{daak water}.

I shall not attempt to present fourteen arguments to support the suggestion of an abstract predicate DECL as Ross (1970) has done, but I note an example parallel to one he brought up that reflects a certain consistency in positing such an element. Notice that (11) is semantically marginal, though syntactically possible.

\[
\begin{align*}
(11) \quad ? \quad \text{aw rawq kA bOq gE brayq jaat} \\
\quad 1-\text{eg tell to grfa he tired very} \\
\quad \text{I told grandfather that he (i.e., grandfather) was very tired.}
\end{align*}
\]

The problem lies at least partially in the incompatibility of a predicate of experiencing or feeling like \text{brayq tired} and one of declaring like \text{rawq tell} when the one who experiences is
not the declarer but is the one to whom the declaration is directed. It is apparently the same general constraint that marks (12) as equally unusual.

(12) ? In brayq jaat
     2-sg tired very

     You (respectful) are very tired.

This time, however, we have no overtly cooccurring predicate to blame it all on. The speech situation, however, has not changed since (12) still constitutes some kind of statement or assertion which, details aside, would look semantically something like

(13) ? (DECL I,II ( PROP (12) )

III

in which the predicate brayq of proposition (12) is incompatible with the higher predicate DECL as it was in (11) with the overt verb of declaring rawq.

Evidence for the specification of an explicit semantic representation of the speaker and addressee(s) may be adduced from the fact that overt forms referring to them are regularly pronominalized. As in English, anaphoric reference in Rengao associates a more fully specified earlier form with a less fully specified later one with which it is coreferential. Note, for example,

(14) bOq pataw khaan gE jIq badUk
     grfa rich-man say he sick stomach

     Mr. Richman said he was sick to the stomach.

in which the third person singular pronoun gE he refers to the same person as bOq pataw Mr. Richman, the more complete form. This general condition on pronominal reference between overt forms is presumably also the controlling factor in the following Rengao sentences.

(15) a. aw jIq badUk-

     I-am sick to the stomach.

b. jAh nu jIq badUk, nu thay 'way paq hyE
     if 2-sg sick stomach 2-sg should stay at house

     If you are sick to your stomach, you should stay home.

Here, clearly, pronouns are not in anaphoric relation with any earlier fully specified noun phrase in surface structure. However, as Sadock (1969:303ff.) pointed out, a natural explanation for this mandatory pronominalization of first and second person forms is that they act like the pronoun and noun association in
sentence (14). That is, underlying sentence (15)a is:

(16) (DECL I, II ( jIq badUk (aw)))
    S       III

Here the argument of the predicate jIq badUk have a stomach ache is the first person pronoun aw, which refers in this semantic schematization to I (the speaker), an argument of the higher speech act predicate DECL, just as gE he refers back to its higher coreferential argument b0q pataw Mr. Richman in example (14). Similarly, the occurrences of nu you in example (15)b may be traced to the higher argument II (addressee) of the predicate DECL.

2.3.2 Imperative (IMP). Following are examples of commands to act in Rengao.

(17) a. nu uq beg
    2-sg drink IMP
    Drink (it).

b. beg chop trong Ing koon aw
    IMP 2-pl act-as-go-between with child 1-sg
    Act as a go-between with my child.

c. beg bEn br0k beg
    IMP 1-pl-incl go IMP
    Let's go!

As in declarative sentences, an underlying speech act predicate may be posited for all of these imperative sentences. An approximate semantic representation of (17)c, for example, would be:

(18) S
    PRED—IMP
    ARG—I
    ARG—I
    ARG—III
    PROP
    PRED—br0k
    ARG—x
    PROP
    PRED—IDENT
    ARG—x
    ARG—bEn
    we-incl

The examples reveal the surface fact that the function word beg may occur before or after an imperative sentence. There seems to be no great difference of meaning among the various configurations with beg. The sentence final beg may be thought of as a sort of tag-imperative, roughly similar to English
'Eat the cake, my boy, do!' The semantic representation of the speech act predicate is actualized by conditions which may be formulated as the normal imperative transformation:

(19) \[
\begin{array}{cccccccc}
\text{IMP} & I & II & X & ( & Y & ) & Z \\
\text{III} & & & & \emptyset & \emptyset & \emptyset & \text{beq} & 5 & \text{beq}
\end{array}
\]

Condition: At least one beq must be selected.

The imperatives illustrated so far have been what Austin (1962) called "implicit performatives," i.e., the speech act predicate is indirectly inferred. The following sentences constitute examples of explicit performatives of an imperative type:

(20) a. nEh nu thay aw koh kaq po;
prior times 2-sg order 1-sg chop eat water buffalo
ku aw thay nu koh kaq tho\text{y ku dong}
here 1-sg order 2-sg kill eat like this again
A long time ago you told me to kill and eat a water buffalo; now I am telling you to kill and eat one in return.

b. aw thay I\text{h} batho ge maq kajap
1-sg order 2-sg-respect teach 3-sg rel grasp
I tell you to teach him so he'll be capable.

It is clear that these are specifically declared commands for the addressee to act. They differ from declared commands for someone else to act as in:

(21) aw thay vi pih phi
1-sg order 3-pl pound rice

I told them to pound rice.

In (21) the uttering of the sentence as a statement to the addressee does not coincide with a command to the addressee, but rather it behaves like the typical nonspeech-act predication. Explicit performatives are like implicit performatives to the extent that they involve first and second person referents and are determined by predicates that overtly describe characteristic speaker-addressee relations. Since (21) involves a third person reference, it cannot be a direct replication of the speech act; i.e., not a direct quote.

While the general topic of negation (NEG) will not be treated here, it should be noted that negative imperatives or prohibitions are signaled by a form different from negated
propositions embedded in other speech act constructions.

(22) a. gah nhen nhEn biq yUq  
towards 1-pl-excl 1-pl-excl NEG fear  
As for us, we are not afraid.

b. chop boY dang maqnhang aw  
2-sg NEG-IMP seek blame 1-sg  
Don't you guys try to blame me!

While the declarative proposition in (22)a is negated with biq, 
the imperative one in (22)b is negated with boY. Here again 
surface manifestations of the negative predicate are controlled 
by the abstract superordinate speech act predicate.

2.3.3 Interrogative (INTERROG). The speech situation in 
which the speaker requires clarification or confirmation of some 
notion is expressed in Rengao as in these examples which 
include the DISJUNCTIVE (DISJUNC):

(23) a. Ih hAm jah kadRI dIq  
2-sg-respect DISJUNC have woman INTERROG  
Do you have a wife?

b. gE hAm khOq blah loong  
3-sg DISJUNC able cut tree  
Can she cut wood?

c. gyonh ha truH hA biq  
Gyonh DISJUNC arrive DISJUNC NEG  
Has Gyonh arrived or not?

d. Nu hAm am aw kaq qmaw dah biq  
2-sg DISJUNC give 1-sg eat rice DISJUNC NEG  
Are you going to let me eat some rice or not?

It has often been observed that the illocutionary force or 
logic of a question is that of a request/command that the ad-
dressees respond by designating one out of the possible alterna-
tives indicated in the question. In questions of the yes-no 
type as in (23)a-d a disjunctive choice of positive or negative 
versions of the proposition is quite evident. The DISJUNC pred 
('or') in Rengao has the forms ha, hAm, hadah (often reduced to 
dah). In questions dah occurs only before biq 'negative', 
while ha or hAm may occur before the main verb as in (23)b as 
the only signal of the speech act type (cf. 6.2).

In some ways like Katz and Postal (1964) and like Boyd and 
Thorne (1969), I suggest here that the interrogative is the prod-
uct of a speech act predicate IMP with an embedded DECL to be
represented roughly as in (24), which is an underlying version of (23)c.

(24)

\[ S_0 \rightarrow \text{PRED} \rightarrow \text{IMP} \]

\[ \text{ARG} \rightarrow I_0 \]

\[ \text{ARG} \rightarrow II_0 \]

\[ \text{ARG} \rightarrow III_0 \rightarrow S_1 \rightarrow \text{PRED} \rightarrow \text{DECL} \]

\[ \text{ARG} \rightarrow I_1 \]

\[ \text{ARG} \rightarrow II_1 \]

\[ \text{ARG} \rightarrow III_1 \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{DISJUNC} \]

\[ \text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{truh} \rightarrow \text{arrive'} \]

\[ \text{ARG} \rightarrow x \]

\[ \text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{biq} \rightarrow \text{NEG} \]

\[ \text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{truh} \]

\[ \text{ARG} \rightarrow x \]

\[ \text{PROP} \rightarrow \text{PRED} \rightarrow \text{IDENT} \]

\[ \text{ARG} \rightarrow x \]

\[ \text{ARG} \rightarrow \text{Gyonh} \]

\[ \text{PROP} \rightarrow \text{PRED} \rightarrow \text{IDENT} \]

\[ \text{ARG} \rightarrow I_1 \]

\[ \text{ARG} \rightarrow II_0 \]

\[ \text{PROP} \rightarrow \text{PRED} \rightarrow \text{IDENT} \]

\[ \text{ARG} \rightarrow II_1 \]

\[ \text{ARG} \rightarrow I_0 \]
Or equivalently, with variables filled in is:

(25)
\[ \text{IMP}(I_0, I'_0, (\text{DECL } (I_1 = I'_0, III = I_0, (\text{DISJUNC}(\text{trUH}(\text{gyonh})), (\text{bIq}(\text{trUH } S_0), III - S_1) \text{gyonh})))) \]

Diagrams (24) and (25) may be interpreted as follows: I (I_0) command/request you (II_0) the command (III_0) that you become a speaker (I_1 is identified (IDENT) with II_0) and declare (DECL) to me (II_1 is identified (IDENT) with I_0) as a declaration (III_1) whether it is the case that x arrived or (DISJUNC) it is not (NEG) the case that x arrived, where x is identified (IDENT) as Gyonh.

Surface structure is related to this diagram via the following conditions: (a) DISJUNC is realized as ha or hAm (with dah as an optional second constituent) directly preceding each of its two arguments, (b) conjunction reduction processes guarantee that identical material in the arguments of DISJUNC will appear only once (to the left of biq neg), (c) the argument of trUH is automatically fronted as subject (d) the right half of the disjunction (ha...ha biq) is optional and diq is a substitute for it, (e) S_0 and S_1 receive no overt specification (or equivalently, they are deleted). Thus (23)c, Gyonh ha trUH ha biq, might optionally appear as Gyonh ha trUH diq or Gyonh ha trUH (Gyonh hAm trUH is perhaps more acceptable).

It is important to note that while interrogatives have an inherent disjunctive aspect, this characteristic is not intrinsically interrogative itself. Rather, disjunction conveys an impression of indefiniteness. Consider the following Rengao sentences:

(26) a. Ih hwang batho qyaq koon aw gE yok
    2-sg-resp help teach a-bit child 1-sg 3-sg take
    ha gE biq
    DISJUNC 3-sg NEG

    You have helped teach my boy some, whether he accepted it or not.

b. Chop hya nhen b0q babrok gE hAm qway
    2-pl go see grfa Babrok 3-sg DISJUNC dwell
    hyE hAm biq
    house DISJUNC NEG
You go see about Mr. Babrok whether he is home or not.

As Lakoff (1970:28) noted in a discussion of questions, certain verbs act like operators binding the items they question. In the above examples the disjunctions seem to be bound in a similar way by the superordinate predicates "help teach" and "see." These types of verbs associated with lower disjunctions receive an interpretation of simple indefiniteness. If, however, the higher predicate is one of asking, a different illocutionary force results from the combination as in:

(27) a. nu nam neq? aw haqlng kaq qmaw nu,
    2-sg come what 1-sg ask eat rice 2-sg
    nu hAm am dah blq
    2-sg DISJUNC give DISJUNC NEG

    (Spk. 1) What did you come for? (Spk. 2) I am asking to eat some of your rice (literally, I'm asking, 'Will you let me or not?).

b. baq gE haqlng h1q, hOy, drUh, nu hAm
    father 3-sg ask emph exclam girl 2-sg DISJUNC
    loq dlq daak ku
    know interrog water proximate

    Her father asked right out, 'Well, girl, did you know about this water?'

In (27)a the interrogative nature of the sentence is made explicit by haqlng, a verb of asking, which binds the lower disjunction. Here the indefiniteness specifically calls for clarification from the addressee--i.e., it is a question. Sentence (27)b may also be translated in a way which more directly reflects its disjunctive character as, "Her father asked right out, 'Well, girl (I'm asking) whether you knew about the water?"

The point is, disjunctions are simply indefinite, and it depends entirely on the nature of the predicate to which it is bound how it is interpreted. This may be taken as support for the representation of a speech act predicate (or predicates) of commands-to-say which, like explicit verbs of asking, may be referred to in a single general statement about the interpretation of disjunctives. Further, note that the form dlq has no independent meaning, but may be said to cooccur with interrogative predicates. Thus in (27)b the generalization refers to haqlng ask, but in (23) Ih hAm jah kadIr dlq, the form dlq has no interrogative predicate to refer to--unless one posits an abstract speech act predicate as we have done.

In addition to yes-no questions, Rengao has WH-questions, i.e., sentences in which some particular argument of the proposition is questioned (i.e., is indefinite).
(28) a. na kAt Un paq ting juy
    who tie fire at tail deer
    Who tied fire to the deer's tail?

b. lUyq kaq neq
    Luyq eat what
    What did Luyq eat?

c. hya paq 11 TarIT
    go be-at indef TarIT
    Where are you going, Tarit?

d. aw jah koon Inq 11 dong
    1-sg have child be-from indef more
    Where could I get a child from again?

e. hOy, drUh ah 11 koon nu
    voc girl be-towards indef child 2-sg
    Oh daughter, where is your child?

f. hOy yaang thoy 11 aw broq leq
    voc spirit be-like indef 1-sg do emphat
    Oh spirit, how should I do it?

g. miq kar 11 Ih waq yok tadr0 leq
    mother specif-time indef 2-sg want take wine emphatic
    Mother, when (what hour) are you going to get the wine?

h. 1a 11 gE chIq
    approx-time indef 3-sg return-home
    When will he go home?

i. plah 11 nu mUt ku 1
    period indef 2-sg enter proximal past
    During what time did you enter here?

j. hOy drUh daq 11 nu waq, rabong qnaaw ha
    voc girl some-obj indef 2-sg want valise new or
    rabong hyeq
    valise worn
    Oh daughter, which one do you want--the new valise or
    the old worn-out one?

k. Ih tek gok ku dOm 11
    2-sg-respect sell pot proximal.extent indef
    How much (money, goods) will you sell these pots for?

Interrogatives of the WH-type result from the occurrence of
indefinite references embedded below speech act predicates IMP + DECL. As in the yes-no question, the sentences illustrated above are requests for a statement clarifying which of the possible alternatives is to be understood. Thus, again the idea of disjunction is involved, but this time it is a disjunction of potential references that is relevant (cf. Langendoen 1969:125). Suppose, for example, (28)b is diagrammed as:
(29)

S
  | PRED-IMP
  |   | ARG-I₀
  |   | ARG-II₀
  |   | ARG-III
  |   | S₁
  |   | PRED-DECL
  |   |   | ARG-I₁
  |   |   | ARG-II₁
  |   |   | ARG-III
  |   |   | PROP
  |   |   | PRED-kag eat
  |   |   |   | ARG PROP
  |   |   |   | PRED AG(ent)
  |   |   |   |   | ARG x
  |   |   |   | PRED PAT(ient)
  |   |   |   |   | ARG y
  |   | PROP
  |   | PRED-IDENT
  |   |   | ARG x
  |   | ARG luyq luyq
  | PROP
  | PRED-IDENT
  |   | ARG y
  | ARG PROP
  | PRED DISJUNC
  |   | ARG indef ref.n...
  |   | | neq what
  | PROP
  | PRED-IDENT
  |   | ARG-I₁
  |   | ARG-II₀
  | PROP
  | PRED-IDENT
  |   | ARG-II₁
  |   | ARG-I₀
  | PROP
  | PRED-IDENT
  |   | ARG-n...
  |   | ARG etc.
This representation is taken to mean that the speaker commands (requests) the addressee to declare to the speaker which among any number of alternative indefinite references stands in the patient relation to the predicate kaq eat of which luq is the agent referred to. The surface form neg what is a selectional consequence of an underlying disjunction of patient arguments of the predicate kaq all embedded to the higher predicates IMP and DECL (i.e., interrogative).

It will be noticed that the interrogatives in (28) are formed with li which, neg what, na who. While these all act as surrogates of a semantic disjunction of indefinite reference, their surface patterns, not surprisingly, vary a good deal. Na who typically substitutes for arguments of the case proposition (agent, patient, comitative) as in (28)a neg what may function similarly as in (28)b, but as often it acts as a noun adjunct, e.g., loong neg what tree. Li which most often is associated with orientational forms like paq at, thoy like, dom extent, inj from, ah towards, kar specific time, la nonspecific time, plan time period. Li is associated with the indefinite deictic daq someone/thing, but as evident in (28)j, there is an implicit restriction on the alternatives possible. Such limitation on the disjunctive choices is perhaps the main difference between li and neg (which latter is not so limited, as shown in (29)). This contrast is parallel to that found in English which versus what, and Vietnamese não which versus gì what.

It was noted in connection with yes-no questions that disjunctive propositions also appear in simple declarative sentences without interrogative connotations. The WH-question forms of disjunction likewise are interrogatives only by virtue of being embedded in the interrogative speech act construction (IMP + DECL). The following sentences point up this contrast:

(30) a. Ih tek kap0 dom li
2-eg sell water buffalo extent indef.

How much will you sell the water buffalo for?

b. Ih tek kap0 dom li, aw dUh rot dom ay.
2-eg sell buffalo extent indef 1-eg also buy ext that

However much you will sell your buffalo for, I'll buy it for that much.

In (30)a the indefinite form dom li signals the locus of the question. In (30)b dom li again marks the same locus of uncertainty. The higher speech act predicates IMP + DECL and DECL respectively are the real determinants, however, for the basic propositions themselves are the same, yet the former is a question and the latter a statement.
2.3.4 Salutatory (SAL). A common speech situation is that in which the speaker acknowledges or greets an addressee. Typically this highlights the arrival and departure of the participants, and we may refer to forms appropriate to the former as welcoming and those of the latter as farewell. Some examples of welcoming are:

(31) a. aw ḥmач (kA) Ih gагAl Ih trУh lAm
    1-sg greet (oplmt) 2-sg first-time 2-sg arrive in
    hI ku
    day proximal
    I greet you on this first time you have come today.

b. ḫUp kA Ih
    honorif-greet oplmt 2-sg-respect
    Greetings to you. (distinguished visitor)

The following sentences mark a farewell:

(32) a. hya chop maq lеС
    go 2-pl relator good
    Have a good journey. (addressee departs)

b. qway kA Ih maq lеС
    stay oplmt 2-sg-respect relator good
    Take it easy. (speaker departs)

A further type of acknowledgement is that of thanking:

(33) aw mаиE kA nu hat
    1-sg praise-thank oplmt 2-sg true
    I surely thank you.

Salutations involve a limited number of verbs of greeting, thanking, staying and going. They share the fact that they are dominated by a speech act expression in which the predicate SAL determines speaker, addressee, and the salutatory proposition itself as its arguments. Sentence (32)a may be represented as:
In order for (34) to receive its surface grammatical formulation, these conditions must be met: (a) the argument which refers to the addressee, even if it is agent, must appear postposed after the verb; (b) if a verb is two-termed as in (31)a and (33), the normal fronting of the agent as subject occurs since the agent is the speaker (not the addressee); (c) the phrase maq lem well is attached to the end of the sentence if the verbs are coming or going types; (d) SALUT, I, II receive no discrete realizations.

The effect of these conditions on salutation propositions is to distinguish them from other types of speech acts:

(35) a. beq chop bEeq hyE 'am aw {maq lem } {maq hreng } imp 2-pl work house give 1-sg {rel good } {rel fast } Build me a house {well. } {quickly. }

b. chop hya paq 1I 2-pl go loc indef Where are you going?

In (35)a, a command, the complement maq lem well as expected for manner expressions is optional and may be by other substituted similar phrases like maq hreng quickly. This is not the case in salutations where the staying and going verbs obligatorily receive maq lem as a complement. Further in (35)b, a question, notice that the agentive argument chop 2-pl takes its expected subject position before the verb. This very general condition is superseded, however, in salutations where the same verb is selected as in (32)a but the second person agent follows the verb. Again, each distinctive speech situation has its own syntactic effects.
2.3.5 *Imprecatory* (IMPREC). A more minor speech act type involves a malediction by the speaker directed toward the addressee. For example:

(36) tiq miq, tiq baq nu. na thay nu ngAr aw?

mother? father 2-sg indef order 2-sg disturb 1-sg

*Curses on your father and mother! Who told you to pester me?*

Though little linguistic study has been done on this kind of structure in general, it appears to constitute a distinct speech act situation. Parallel with the previously described performatives, we may identify IMPREC as a predicate which takes speaker, addressee, and an uncomplimentary proposition as its arguments.

2.3.6 *Concessive* (CONCESS). Sentences in which the speaker *concedes* to some proposition seem to constitute a further speech act construction. Consider the following examples:

(37) a. Oyh, dah kyaqw kyEl d0h

oh permit follow concess-redup casual

*Oh all right, (you) can come along, I guess.*

b. aw dah rawq tala gE

1-sg permit tell person 3-sg

*I'll (be willing to) tell him.*

c. yaq pak-ke yok aw hA

grandmother chameleon take 1-sg okay

(Spk.1) 'Mrs. Chameleon, take me, okay?'

dah tok ga haq

permit ascend 3-sg positive-response

(Spk.2) 'All right, come on up.'

d. thoy ay 10yq ruyh dah jraq qaq ah 11
do like that let elephant permit gore eat toward indef

bAh

indifferent

*In that case let the elephant gore and eat (you); it doesn't matter.*

Suppose (38) is assumed to be a partial semantic representation of (37)b:
Then the surface form of (37)b is determined by the following conditions: (a) variables of the main predicate rawq are replaced with lexical forms associated with them in the identificational propositions; (b) a general condition of 'proposition consolidation' (cf. Frantz, 1971), or as Lakoff (1970:69) calls it, "predicate lifting" adjoins the lower predicate (rawq) to the higher CONCESS and all the arguments to the common higher node (S); (c) identical arguments are reduced to a single one; (d) normal subjectivization constraints predict that the AG proposition appears at the beginning of the sentence; (e) CONCESS is regularly made explicit by dah.

The signals of CONCESS are actually several. The form dah carries the notion of "permission." In (37)a, however, note that the predicate kyawq follow is reduplicated with an -Eh suffix, which signifies a resigned concession. Sentence (37)d presents the forms 10yq let and bAh indifferent both of which cooccurring with dah reinforce the total concessive force of the sentence. That is, the single semantic notion CONCESS may have various simultaneous exponents.

2.4 Conjunctions (CONJ) of Speech Act Types

Sadock (1970) has discussed sentences which in form are questions but which are used in an imperative fashion. He called these "whimperativer." This, of course, brings up the entire question of the discrepancy that exists between illocutionary force and grammatical form generally. It would seem to constitute prima facie evidence for the separate generation of
forms and for providing them with semantic readings regardless of shape. There often seems, however, to be a genuine sense in which whimperatives, for example, reflect elements of both an imperative and an interrogative meaning. Sadock supposes that (39) has the deep structure (40):

(39) Will you give me a drink?

(40)

Sadock's solution for whimperatives, briefly, is that they represent underlying conjoined hypersentences. The surface form turns out to be that of the first constituent $S_H$ because conjunction reduction eliminates all the material in the second $S_H$ which is identical with the first. Thus (40) has an interrogative form and meaning combined with only an imperative meaning (but not form).

There are certain Rengao sentences that appear to be different from the more or less "pure" speech act types described above. They too seem to be hybrid in some sense.

(41) a. aw kaq pagaang ku hAh
    1-sg eat medicine proximal confirm
    I'm going to take some of this medicine now, okay?

    bOy taam kaq Oh
    NEG-IMP not-yet eat NEG-empH
    Don't take any yet!

    b. chop bOy tok paq jPng ku hAh
    2-pl NEG-IMP ascend loc house prox confirm
    Don't come up inside the communal house, okay?

    c. qway bri maq lem hAh.
    stay 2-dl relator good confirm
    Take it easy now, okay?

    d. qway lh maq lem beg.
    stay 2-pl relator good IMP
    You be sure to take it easy!
The first clause of (41)a is a simple declarative statement to which \textit{hAh} has been appended. It is not simply a question. It is a statement and a request for confirmation. The negative imperative (prohibitive) force of (41)b receives a somewhat attenuative modification by adding \textit{hAh}. (41)c and (41)d are both salutation but the sentence with the tag-word \textit{beg} seems to carry a more emphatic, less casual force than does \textit{hAh}. Perhaps the notion of conjoined speech act types best characterizes these sentences. (42)a-d summarizes (41)a-d:

(42) a. DECL - CONJ - INTERROG (IMP + DECL)
    b. IMP - CONJ - INTERROG (IMP + DECL)
    c. SAL - CONJ - INTERROG (IMP + DECL)
    d. SAL - CONJ - IMP

If something like (42) describes the sentences of (41), then the conditions on surface form would involve, as in Sadock (1970), the elimination of all identical material in the second hypersentence and the realization of \textit{hAh} or \textit{beg} as the only overt trace of the second hypersentence.

The use of rhetorical questions in Rengao is another area in which a conjunction of speech act constructions seems to offer adequate explanation. For example,

(43) a. (Spk.1) nu hAm am hAm biq
    2-sg DISJUNC give DISJUNC NEG
    Are you going to give (them to me) or not?

    (Spk.2) thoy ll aw laq kh0q am nu
        like indef 1-sg experience able give 2-sg
    How can I give them to you? (i.e., I can't give them to you!)

b. (Spk.1) h0y tarIt thoy ll nu biq qmoong
    oh Tarit like indef 2-sg NEG replace
    kap0 aw
    water buffalo 1-sg

    Tarit, why haven't you paid me back a water buffalo?
    (= Pay me back my water buffalo!)

(43) b. (Spk.2) thoy ll leq Ih thay aw qmong
    like indef emph 2-sg order 1-sg replace

    Why are you telling me to pay you back?

Example (43)a provides a rhetorical question by Speaker 2 in which the form is \textit{interrogative} but the force is one of an additional emphatic \textit{declarative} response. On the other hand (43)b presents an instance of a \textit{question} by Speaker 1 which carries
with it the function of a command. That it is to be taken as a
command is clear from Tarit's response, for he paraphrases
the initiating question with the word they order.

Invoking again the idea of conjoined speech acts, (43)a,b
may be summarized as (44)a,b respectively:

(44) a. INTERROG - CONJ - DECL
    b. INTERROG - CONJ - IMP

Note that (42)a,b hAh-final sentences, involved a "suppressed"
interrogative function while (44)a,b emphasizes the interroga-
tive. A clearly problematical aspect of the formulation of un-
derlying structure referred to here is that it leads to the con-
trastive use of order in the semantic representation. That is,
(44)a,b is the converse of (42)a,b. This is unsatisfactory to
me, but I cannot pursue it further here.

The impact of the rhetorical question inheres in the fact
that while it seems to be a question, it is in force a state-
ment or command; and further, while it is superficially either
negative or positive, its meaning is usually the opposite. As
discussed earlier, interrogative sentences are typically a re-
quest to select an alternative (often positive or negative)
proposition as a reply. The rhetorical response, then, ques-
tions in return the inappropriate proposition, thereby em-
phasizing the remaining alternative.

(45) (Spk.1) h0y bya, hAm qway hyE diq?
voc princess DISJUNC stay house interrog
   O princess, are you at home? (= knocking on door)
   (Spk.2) bIq qway neg nAh qway haq!
     NEG stay what emphat stay emph
   Why wouldn't I be? Sure I'm home.

In this very common kind of dialogue the guest arrives and asks
whether someone is home or not home. The host replies ques-
tioning the negative alternative (i.e., the host's not being
home) which indicates that he is indeed at home. As the last
clause in (45) shows, the speaker will often rephrase the rhe-
torical question to an emphatic positive as a confirmatory
statement. On the other hand, the rhetorical sentence in
(43)a questioned the positive alternative proposition thereby
signifying the selection of the negative one as the appro-
priate response.

2.5 Reported Speech Acts

Speech acts are often signaled by surface markers which
convey the totality of an illocutionary force in a very con-
densed fashion. This is typical of the abstract (implicit)
performatives of mood. As mentioned earlier, however, it is possible for such performatives to be made explicit. Explicit performatives are really instances of simultaneously reporting a speech act and performing it. Thus in the Rengao sentence:

(46) aw khaan aw badrong
    1-sg say 1-sg rich

    I say, I am rich.

Where the speaker is performing an act of declaring the entire sentence, he is at the same time explicitly reporting this declaration by the phrase aw khaan I say. An approximate semantic version of (46) would be:

(47) DECL (I, II, ( khaan (aw, badrong (aw)) ) )

III

In (47) the entire sentence is embedded in a speech act containing the abstract predicate DECL. Here DECL is mirrored by khaan say and I by aw 1-sg (II receives no overt form in this instance). Note further that the speaker (I) is coreferential with both the other two first person pronouns aw embedded below it.

The Rengao pronouns aw I, Ih/nu you, etc., regularly designate the speaker and the hearer respectively of the ultimate speech act. However, note that this does not hold for the following:

(48) a. ruyh khaan, o yaq pak-ke Ih kaq doon
    elephant say oh grandma chameleon, 3-sg eat ear

    nhEn boyh
    we-excl already

    The elephant said, 'Oh Mrs. Chameleon, you've eaten our ears.'

b. qE khaan, h0y miq, aw kwaq qway paq ku.
    3-sg say oh mother 1-sg not-want dwell at proximal

    She said, 'Oh Mother, I don't want to stay here.'

If explicit performative sentences like (46) are a report of the speaker's own speech act as it is occurring, then quotations, as partially illustrated in (48), are a report of all other explicit speech acts. These latter involve the establishment of a speaker-addressee domain which differs from that of the ultimate speech act. Thus in (48)a the pronoun Ih 2-sg-respect does not refer to the addressee of the total speech act, but rather to another addressee associated as an argument with the predicate khaan say. Similarly nhEn our does not refer to the speaker of the whole sentence, but is again controlled by khaan and refers to ruyh elephant. Looking at (48)b, it is clear that
aw l-sg refers not to the speaker of the entire sentence, but to the speaker of khaan say, which is identified as ge 3-sg. Thus (48) provides examples of a speech act which reports yet another speech act (one which is overt and involves a change of speaker and addressee).

Direct quotations such as (48) may be identified as such in Rengao largely because a vocative may occur with them. For example, (48)b containing the vocative ho y mig o mother may be compared with (49) in which the vocative is omitted:

(49) ge khaan aw kwaq qway paq ku
    3-sg say 1-sg not-want dwell at proximal

    She said, 'I don't want to stay here,' or She said I
    don't want to stay here.

Now the interpretation of aw l-sg is ambiguous. Construed as a direct quotation, aw and ge are coreferential. Construed as an indirect quotation, aw and the ultimate speech act argument I (the speaker) are coreferential.

The theory of speech act constructs (i.e., hypersentences, performatives) has so far predicted that the speaker and addressee identities will be the same as lower first and second person references, thus making generalizations about pronounization fairly straightforward. Now the ambiguity of aw in (49) reveals that things are not so simple. The question is, how does one represent the differing semantic structures of the two readings of (49)? The solution offered by Sadock (1969:310) implies something like the following representation for (49):

(50)

\[
S \rightarrow \text{I}_1 \text{DECL I}_1 (\text{speaker}_1 \text{declares to addressee}_1)
\]

\[
\text{ge khaan she said}
\]

\[
\text{I}_2 (\text{ge}) \text{DECL I}_2 (\text{spk}_2 \text{decl addressee}_2)
\]

\[
\text{aw kwaq qway paq ku speaker does not want to stay here}
\]

Under this arrangement the identity of aw speaker is determined by its next highest abstract hypersentence. If the dotted hypersentence is present semantically, then speaker 2 (I₂) who is the same as ge she controls the identification of aw. If there is no intervening hypersentence, aw will refer to the highest hypersentence, in which speaker (I) is an
argument. While this solution was felt by Sadock to be a logical consequence of the hypersentence approach, it can be seen to involve difficulties. First of all the ambiguity of reference is precisely because the speaker of the lowest proposition has two antecedent speech act constructions—the ultimate one is abstract (I DECL II), and the immediately preceding is explicit (qe khaan she said). The generalization that the higher speech act construction binds the lower references to speaker or addressee is not incorrect, but rather it is too imprecise. One may tighten up the generalization by limiting the domain of such pronominal determination to a relationship between embedded propositions and their immediately superordinate (abstract) hypersentences. Thus Sadock would insert something like the dotted hypersentence between qe khaan and aw kwag gway pag ku. One notices, however, that the "embedded" hypersentence is embedded in a strange way. That is, it may be said that the proposition aw kwag...functions as an argument of the predicate khaan say (in surface terms it is a "direct object"). But I₂ DECL II₂ does not function as a true embedded quotation. Rather it is a sort of abstract alter ego of the explicit speech act qe khaan she said. The only function of the inserted hypersentence is to identify aw with the speaker qe rather than with the ultimate I (speaker of the entire sentence.) It seems that this can be formalized more directly through identificational propositions as below:

(51)

I DECL II (speaker declares to addressee)

\[ S \]

\[ x \text{ khaan} \quad x \text{ said} \]

\[ y \text{ kwag gway pag ku} \quad y \text{ does not want to stay here} \]

\[ x \text{ is identified as qe 3-sg} \]

\[ \{x\} \quad \text{('reported speaker')} \]

\[ \{I\} \quad \text{('ultimate speaker')} \]

If the variable \( y \) is identified with \( x \), the result is a direct quotation; and if with \( I \), it is an indirect quote.

Rengao quotations may thus generally be considered as propositions embedded in an explicitly reported speech act which in turn is embedded in an ultimate abstract one. Following are some of the ideational-communicational verbs often associated with quotations:
(52)  khaan  to say  tacheng  to think  
     rawq  to relate  chIh  to write  
     tEl  to reply  kraaw  to call  
     haqIng  to ask  hakaat  to make a wish  
     thay  to command  takAy  to instruct, order  
     jrayq  to scold  tataq  to order  

The propositional complements of the verbs in the above paragraph must be distinguished from those of the following:

(53)  a.  juy  broq  hIq, pIw, pIw  
       deer  do  deer-ory  
       The deer went, 'piw, piw.'

     b.  baq  gE  broq, 'tAng hAq, tAng hAw.'  
       father 3-sg  do  ghost-ory  
       Her father went, 'Tang haq, Tang haw.'

     c.  chIh  di  katu  hlwihi, hlwihi, hlwihi.  
       Chin Di  cry  bird-ory  
       Chin Di went 'hiwihi, hiwihi, hiwihi.'

The utterances reported above may be termed "nonsignificant quotations" (Sadock 1969:317ff) comprising a special class of sentences in which nearly anything that is mimicable may appear.

While it is true that quotations are regularly embedded below explicit speech act verbs from the list in (52), note that this is not always true:

(54)  (Spk.1)  yaang  khaan,  na  tok  hyE  aw  
        spirit  say  indef-person  ascend  house 1-sg  
        The spirit said, 'Who has come up to my house?'

     (Spk.2)  aw  tok  
        1-sg  ascend  
        I have.

In the telling of traditional tales, it is especially common for the narrator who is the highest ultimate speaker, to quote a different speaker and speech as in (54) yaang khaan, na tok hyE aw?, but then without warning to shift to still another speaker and quote his speech as in the reply "aw tok" with no explicit, overt signal. Of course, to the initiated such elliptical phenomena are easily filled in by one's previous knowledge of the account. What is to be noted, however, is that while the first sentence of (54), the question, is embedded in an explicit speech construction and an even higher abstract one,
the second sentence, the response, is embedded in two abstract or implicit speech acts. (55) diagrams the question and (56) the response of (54).

(55)

\[
\begin{array}{c}
S \\
I_1 \text{ DECL II}_1 \ (speaker_1 \ tells \ addressee_1) \\
\quad \text{yaang khaan} \ the \ spirit \ said \\
\quad \text{na tok hvE aw} \ who \ comes \ up \ to \ my \ house?
\end{array}
\]

(56)

\[
\begin{array}{c}
S \\
I_1 \text{ DECL II}_1 \ (speaker_1 \ tells \ addressee_1) \\
\quad I_2 \text{ DECL II}_2 \ (speaker_2 \ tells \ addressee_2) \\
\quad \text{aw tok I (speaker}_2) \ come \ up
\end{array}
\]

2.6 Concerning Speech Act Participants

2.6.1 Vocative Expressions. Vocative forms directly reflect the speech situation in that they explicitly identify the addressee.

(57) a. 0 boq tUnh tarUnh, thoy 11 nu halah o grandfather Tunh Tarunh like indef 2-sg lazy jaat thoy ku? very like proximal

Oh Mr. Tunh Tarunh, why are you so lazy like this?

b. 0 ken, aw rawq am kA Ih loq aw takat... o ken 1-sg tell give that 2-sg know 1-sg malaria

Dear Ken, I want to let you know that I have malaria...

(beginning of a letter)

c. nu nam tadrong neq, tapaay? 2-sg come matter what rabbit

What have you come for, Rabbit?

d. biq kadook kAyh yaaw, yaq pOm, boq NEG conceal redup more grandmother Pom grandfather pataw thay aw haqIngh nhen chaw. Ih rich-man command 1-sg ask see grandchild 2-sg

To get right to the point, Mrs. Pom, Mr. Richman...
told me to try and ask for your grandchild.

Vocatives in Rengao are usually names (TUnh TarUnh, Ken, etc.), kinship terms (mig mother, drUh daughter), or descriptions (tapaay rabbit). Typically, vocative forms referring to the addressee have greater semantic content than their coreferential pronouns (if any) internal to the basic proposition. A vocative usually occurs preceding or following the clause, though it may appear in the middle of closely knit utterances like (57)d. Vocatives initiated with Q are generally grammatical only in initial position.

Precisely how vocatives are best to be represented is not too clear. We may receive some insight, however, from the fact that such expressions are somehow external to the basic proposition with which they are associated. That is, vocative forms do not function as arguments to the predicate of the basic proposition. Notice (58) a-d:

(58) a. O taang, nu trUh Ing ½I
    o Tang  2-sg arrive from indef
    Oh Tang, where have you come from?
 b. *O taang, taang trUh Ing ½I
 c. *O nu, nu trUh Ing ½I
 d. *O nu, taang trUh Ing ½I
 e. nu trUh Ing ½I, taang
    Where have you come from, Tang?
 f. *nu trUh Ing ½I, nu
 g. *taang trUh Ing ½I, taang

Regardless of whether the vocative expression precedes or follows the clause composed of the predicate trUh with its array of arguments, the vocative form cannot substitute for one of those arguments. Neither can the pronominal elements filling the argument slots function as vocatives. I assume here again that a straightforward formulation of the speech act provides a frame of reference which explains these facts. Suppose (59) underlies vocatives generally:
That is, just as identificational predicates associate constants with argument variables in the basic proposition, so a hypersentence identificational proposition associates vocative material with the hypersentence argument II, the addressee. This reflects the fact that vocatives are somehow extrapositional to the basic predication even though it may be coreferential with one of its constituents.

2.6.2 Status Levels. The relationship of the speaker to the addressee is one which controls overt structures in a variety of ways. The predicates of the speech act construction (moods) reflect one aspect of this relationship. The relative status of each of these participants is also important, as reflected in the following sentences:

(60) a. Ih nam Ing II?
    2-eg-respect come from indef

    Where have you (respectful) come from?

b. nu nam Ing II?
    2-eg-casual come from indef

    Where have you (friendly or condescending) come from?

Sentence (60)a represents the addressee as held in high status in the mind of the speaker, while (60)b accords the addressee no special status—it is casual and applies to equals or inferiors. Interestingly, this status distinction is reflected only in this singular pair of pronouns, being completely lacking elsewhere in the rest of the pronominal system.

In their study of Korean performatives, Lee and Maxwell (1970:375-76) suggested that speech level contrasts like those illustrated above may be handled by assigning a feature [humble] to the "subject of the performative" (the speaker) and [respect] to the "indirect object of the performative" (the addressee). According to that model, we could generalize (60)a,b as (61)a,b thus:
In this way arguments of propositions which are coreferential with superordinate ones of the speech act may be considered to be controlled by the status features associated with the latter.

There is, however, an obvious redundancy in the feature specification such that if the speaker is [+ humble], the addressee is granted a [+ respect] status. On the other hand, the speaker's taking a [- humble] status implies a [- respect] specification for the addressee. This is true because the notions [humble] and [respect] are two terms of but one relationship that may exist between a speaker and an addressee. So far as labeling is concerned, one might simply mark the speaker's status as [+ humble] or [- humble] since he is actually the one who is imputing the status relationship both to himself and to the addressee.

Though I will not say much further concerning this analysis of status level phenomena, I have the feeling that the most satisfying account will result from an approach that recognizes the importance of presuppositions in a linguistic description— that is, "happiness conditions..., the conditions which must be satisfied in order for the item to be used aptly" (Fillmore 1968c:66). In this view, the fundamental function of the pronouns ḫu and ḫu of (60) are the same—they simply designate the addressee. However, the use of ḫu, for example, presupposes that the addressee is somehow of higher status and conversely that the speaker is of a lesser one. If this is true, pronouns differing only as to status are not radically different from those that differ as to number, for example. Compare:

(62) a. ḫunam ḫu li?
    ḫunam ḫu li?
    Where have you two come from?

b. chop nam ḫu li?
    ḫunam ḫu li?
    Where have you all come from?
Again it is suggested that the speaker is merely directing a question toward the locutionary target in both (62)a,b, and the fact that the target is dual in one case and plural in the other is a presuppositional, not an assertional matter. If these cases of number are parallel to those of status, one would assume that as in (61)a where the addressee (II) was marked [+ respect], so in (62)a,b the addressee should be labeled [+ dual] and [+ plural] or something like it. However presuppositions are handled, matters of status, number, and undoubted-ly others in Rengao must be viewed in a uniform way, a way which distinguishes the speaker's assumptions from his assertions.

2.7 Orientational Aspects of the Speech Act

Just as the speech act construct is the "anchor point" for certain personal pronominal references, so it is for such orientational factors as time and location. It is important to note, however, that not all temporal and locational references involve the situation of the speech act; for example, December 7, 1941, and Pearl Harbor are independent expressions of time and place while now and here are not.

2.7.1 Temporal Reference. Rengao has no obligatory tense system in the sense of Indo-European languages. Simple past, present, and future time may be optionally specified, however, as in (63):

(63) a. na peng loong bring ah taw I nAh
    indef-anim shoot tree species toward distal past emph
    Who shot at that tree over there?

b. eh bOg pataw hUL aw
    future grandfather rich-man angry 1-eg
    Mr. Richman will be mad at me.

c. kaar ay aw b1g hEng chIq yaaw paq plAy bEn
    now 1-eg NEG desire return more loc village 2-pl
    Now I don't want to return to our village.

These sentences reveal the potential for indicating the relationship between the time of the speech act and the time of the basic proposition. If the time of the speech act is \( T_0 \), then the time of the basic proposition in (63)a is prior to \( T_0 \), (63)b is subsequent to \( T_0 \), and (63)c is simultaneous with \( T_0 \). We may diagram (63)b, for example, as (64):
Perhaps the most common temporal references in Rengao involve specific designations like:

(65) a. mar eh                              tomorrow
    hi hamOy eh                               day after tomorrow
    hi hatlg eh                                three days hence
    hi hatam eh                                four days hence
    hi dam kra                                 five days hence
    sEq ku eh                                  this coming afternoon

b. hi nEh l/hi gah rong                   yesterday
    hi hamOy nEh/hi gah                      day before yesterday

c. hi ku                                  today
    sEq ku                                  this afternoon
    khay ku                                  this month
    kaplah ku                                at this time

d. qngah                                  daybreak
    dAng hi                                  noon
    mat hi pEng gov loong                   sun at tree tops (8 A.M., 6 P.M.)
    tavlh mat hi                             sun turning aside (2 P.M.)
    mat hi k1lh                              sun falls, sundown
    ramang                                   night

The examples in (65)d relate time events which are independent of the factors of the speech situation. However, (65)a-c all allude to the time of the speech act. The form hi hamOy eh day after tomorrow cited in (65)a contains hi day which indicates the relevant temporal "size unit" (in contrast to month, year, etc.). The element eh means subsequent to $T_0$. hamOy conveys the idea two degrees of displacement from $T_0$. This all adds up to a meaning of two days removed, subsequent to the time of the speech act (TSA). Notice that hi hamOy nEh day before yesterday in (65)b is like hi hamOy eh except that nEh indicates time prior to that of the speech act. A specific time phrase as in (66)a may be represented as (66)b.
PREDICATES AND PARTICIPANTS

(66) a. hi hamOy eh aw chIq.

day two-removed subs-\(T_0\) 1-sg return-home

The day after tomorrow I'll go home.

b. S

DECL I, II, \(T_0\)

aw chIq \(T_1\) (where \(T_1 = 2\) days
subsequent to \(T_0\))

The time phrases in (65)c are all "present" in some sense. The modifying form ku means proximal to speech act participants, and may be used in both time and location functions (e.g., hi ku this day, hyE ku this house). Though it is seldom used of time, the form meh forms a semantic opposition with ku and means "distal to speech act participants." It appears then, that with reference to time, a proposition may be subsequent, prior, simultaneous and/or simply proximal to that of the controlling speech act, the latter two perhaps being reducible to one predicate.

As mentioned earlier in connection with references to speaker and addressee in reported speech acts (quotations), there is also an ambiguity of temporal reference under the same conditions. That is, suppose sentence (66)a is embedded as a quotation (67).

(67) hi nEr I gE khaan, hi hamOy eh

day 1-day-prior-TSA 3-sg say day 2-remove subs-TSA

aw chIq

1-sg return

which may be interpreted as either (68)a or b.

(68) a. Yesterday he said that day after tomorrow I would go home.

b. Yesterday he said, 'Day after tomorrow I will go home.'

In (68)a both time references are anchored in the single domain of the highest speech act, and while this is clear from the indirect quotation form of the English translation, (67) is ambiguous in Rengao. (68)b reveals that, understood as a direct quotation, there are two anchor points for time reference. That is, hi nEr I yesterday is dominated by the ultimate abstract declarative speech construct, but hi hamOy eh day after tomorrow is dominated by the reported speech act of gE khaan he said. The two readings of (67) as (68)a,b may be represented as (69)a, b respectively.
2.7.2 Locational Reference (LOC). Sentences like the following seem to require the specification of the spatial orientation of the speaker in the speech situation:

(70) a. poor ku saang gyAng boyh
    rice prox-spk-loc finish develop completed
    This rice is all done (cooking).

    b. gE tok paq j0ng meh
        3-sg ascend loc communal house med-distal
    He went up into that communal house just there.

    c. vi br0k khom, khom, khom truH paq hyE
taw
    3-sg go persist arrive loc house
    They went on and on and arrived at the house over there.

There are three degrees of proximity to the speaker reflected in the locational deictic forms ku proximal, meh medium-distal, and taw extreme distal. The addressee is not a systematic reference point.

The arguments of a proposition embedded in a given speech situation may be specified as to their orientation with respect to the location of that ultimate speech act. Thus (70)a may be diagrammed as (71).
Besides orientational predicates of simple distances like (ku, meh, taw), which are "deictic" elements, there are other forms that convey other spatial relationships, for example (72).

(72) pEng above, yOp below, kagnAm under, ngEr in front, rong in back, haning to the side, hadroy before, hagniq after, chAm down there, tl up there, ma taw over to the right.

While most of these forms are "preposition-like" elements, the morphemes tl far above and chAm far below have a special deictic function in that they regularly refer to the location of a speech act. Consider (73)b which is an answer to the question (73)a.

(73) a. miq nu paq tl
   mother 2-ag loc indef
   Where is your mother?

b. gE tok paq tl
   3-ag ascend loc far-above-spk-loc
   She went way up above there.

In this instance the location of the speech situation of (73)b is the anchor point for tl is understood as up above the speaker and would look something like (74).

(74) S
     DECL I, II, L₀

     gE tok paq L₁ (L₁ = far above L₀)

Again, the embedding of a quotation introduces an ambiguity of reference point for locative deictic forms. (75) has the two readings (76)a,b:

(75) taang khaan, gE tok paq tl
    Tang say 3-ag ascend loc far-above

(76) a. Tang said that he went way up above there.

b. Tang said, 'He went way up above there.'

As was true of the parallel temporal reference ambiguity, so in (76)a the indirect quotation reading of (75) takes the location of the ultimate speech act (L₀) as the reference point, while
the direct quotation reading of (76)b takes the location \(L_1\) of the reported speech act \textit{taang khaan Tang said} as the reference point.

In narrative accounts it is usual for locational forms to refer not to the ultimate speaker, but to a locus previously established in the discourse. For example, consider the narrative fragment (77).

(77) \begin{align*}
a. & \text{bya } \text{jak rook } \text{kroong} \\
& \text{princess go follow river} \\
& \text{The princess walked along the river.}
\end{align*}

\begin{align*}
b. & \text{chIn di } \text{duh } \text{jak dang kadI} \\
& \text{Chin Di also go seek woman} \\
& \text{Chin-Di also was going to seek a wife.}
\end{align*}

\begin{align*}
c. & \text{mOyg br0k Ing } \text{pEng} \\
& \text{one go from above} \\
& \text{One went from above.}
\end{align*}

\begin{align*}
d. & \text{mOyg br0k Ing } \text{y0p} \\
& \text{one go from below} \\
& \text{One went from below.}
\end{align*}

\begin{align*}
e. & \text{bri tajrAm tabwAl} \\
& \text{3-dl recip-meet together} \\
& \text{They met each other.}
\end{align*}

Here the forms \textit{pEng above} in (77)c and \textit{y0p} in (77)d are anchored not in the location of the narrator's speech situation, but in the reference point \textit{kroong river} of (77)a.

There are instances even in narrative speeches, however, of the speaker's location being introduced. Notice (78)

(78) \begin{align*}
& \text{h0y, boq bagaap ku kaqd0p kaqd0p krlyh} \\
& \text{well grandfather Bagap prox-spk thump thump carries} \\
& \text{kruh} \\
& \text{basket}
\end{align*}

\text{Well, Mr. Bagap here } \text{"thump, thump" carried the basket.}

In this case \textit{ku} places Mr. Bagap somehow in the locus of the narrator's speech situation. Obviously the story character is not physically present. It is conceivable that the story teller is placing himself and his audience into the situation of the story, but here I think not. In (78) \textit{ku} seems to refer to a character just recently (proximally) mentioned in the stream of narration. That is, \textit{ku} is used to reflect discourse proximity.
Linguistic investigation which was continued subsequent to the foregoing description of Rengao speech act phenomena has resulted in my perception of its complexity having been expanded considerably. See Gregerson (1976) for my up-dated description of a predicate-proposition approach to some broad questions of assertion, presupposition, speaker's purpose and attitude.
3 Aspectual Predicates

Aspectual elements are essentially one-termed predicates which take a proposition as their argument. The following aspectual predicates by no means constitute the entire set, but they exemplify some of the more basic modes of characterizing propositions which are employed by the Rengao speaker.

A general diagram for aspectuals then is something like:

(79) S
    |_________ Mood
    |       /     \
    |      PRED
    |     /     \
    |    ARG-I
    |   /     \
    |   ARG-II
    |  /     \
    | ARG-III
    |  /     \ PROP
    | ARG-PRED
    | /     \ Aspect
    | ARG
    | / \ PROP
    | ARG-T0
    | / \ L0

3.1 Completion (COMPL)

An event which is viewed in some sense as a fait accompli is marked by the presence of the auxiliary preverb saang be finished and/or the final particle boyh already as exemplified in (80).

(80) a. miq baq nhEn hlat boyh
    mother father 1-pl-excl die COMPL
    Our mother and father are dead already.

    b. Kaar ay saang jah manlyh kh0q poyq rangaaw
       now COMPL have-exist person POSSIB speak Rengao
       Now there is someone who can speak Rengao.

    c. Hoy drUH naang, aw saang am gE kap0 boyh
       o daughter 1-sg COMPL give 3-sg buffalo COMPL
       Daughter, I have given him a water buffalo already.

    d. aw padar saang kh0q boyh
       1-sg deceive COMPL POSSIB COMPL
       I am already able to act deceptively.

    e. Saang chem chUUr, aw kuyq poor
       COMPL feed pigs 1-sg dish-up rice

50
After feeding the pigs, I dish up the rice.

Sentences (80)a,b manifest the semantic notion COMPL by final particle boyh and preverb saang respectively. Sentence (80)c employs both saang and boyh as a realization of the same predicate COMPL. In (80)d the proposition aw padar I deceive functions as an argument of the modal kh0q be able. The aspektual COMPL is, however, the highest predicate, and its surface realization saang...boyh brackets the next lower predicate kh0q, rather than the lowest embedded predicate padar. Finally, (80)e involves two sequentially ordered main propositions, the first of which is characterized as COMPL, and which thus modified forms the setting for the event which follows, i.e., for aw kuyg poor.

The processes involved in realizing the overt manifestation of COMPL may be illustrated by considering (80)c. Ignoring for these purposes the vocative element and referential representation, the proposition aw saang am gE kapO boyh has approximately the underlying structure of (81).

(81) a. PROP — PRED — COMPL
    ARG — PROP — PRED — am give
    ARG — PROP — PRED — AG
    ARG — aw 1-sg
    ARG — PROP — PRED — BEN(efactive)
    ARG — gE 3-sg
    ARG — PROP — PRED — OBJ(ect)
    ARG kapO buffalo

b. COMPL (am (AG (aw), BEN (gE), OBJ (kapO)))

A very general operation on underlying (semantic) structures has been variously termed "predicate raising" (McCawley 1968b), "predicate lifting" (Lakoff 1970:69), "verb-adjunction" (Schiffman 1969:93) and "proposition consolidation" (Frantz 1971:82). This process has the effect of associating the predicate am more directly with the predicate COMPL as in (82).
ASPECTUAL PREDICATES

(82) a. PROP → PRED → COMPL
   arg → PROP → PRED → AG
   arg → PROP → PRED → aw
   arg → PROP → PRED → BEN
   arg → PROP → PRED → qE
   arg → PROP → PRED → OBJ
   arg → kapO

b. COMPL am (AG (aw), BEN (qE), OBJ (kapO))

Normal topic selection requires the agentive argument surrogate, aw 1-sg, to be preposed in front of the entire expression. COMPL then is realized as saang preceding the main verb am and boyh following the proposition, or both.

Semantically, the predicate COMPL is understood to characterize the developmental status of an event with reference to some time point given in the context. This time anchor point may be T₀, i.e., the time of the speech act—and, indeed, if no other time is specified, this would be the normal interpretation. On the other hand, if a time other than T₀ is to be the reference point for COMPL, then that other time must be specified at some point in the context. Compare (83)a,b.

(83) a. yUq gE hlat boyh
    fear 3-sg die COMPL
    I'm afraid he's dead already.

b. yUq mat hi kIh gE hlat boyh
    fear eye day fell 3-sg die COMPL
    I'm afraid he will be dead before sundown.

In (83)a at the time of the speech act, i.e., now, someone has died. But (83)b has the completion of the event by an independent time reference point "sundown."

3.2 Incompleteness (INCOMPL)

An event which is not completed, but for which ultimate completion is assumed, is signaled by taam not yet. The sentences of (84) exemplify this aspectual predicate.

(84) a. kadIrI taam paay poor
    wife INCOMPL cook rice
    My wife hasn't cooked rice yet.
b. gE chIQ boyh ha taam
3-sg return COMPL DISJUNC INCOMPL
Has he gone home yet or not?

c. chop b0y taam yUq
2-pl NEG (IMP) INCOMPL fear
Don't be afraid.

d. Ing qmanq yang nEH aw taam phyaq daang haqmoon
from long time 1-sg INCOMPL ever seek narrate
daq ay
one deictic
I've not (yet) in a long time tried to tell that one
(tale).

e. taam maq aw mUyH am bRI Oh
INCOMPL rel 1-sg cut-brush give 2-dl NEG
I haven't yet cut brush for you.

Underlying (84)a let us assume initially the partial
semantic structure (85).

(85) PROP  PRED    INCOMPL
       ARG  PROP  PRED  paay  cook
         ARG  PROP  PRED  AG
         ARG  kadrI  wife
         ARG  PROP  PRED  PAT
         ARG  poor  rice

Again familiar processes of predicate lifting and agent preposing
produce the actually occurring expression.

Looking at (84)b, one recognizes the pattern of a positive
statement linked disjunctively with a negative one to produce
the familiar interrogative structure. In this instance it is a
case of positive completion or negative completion. Similarly,
examples (84)c reflects the specifically negative flavor of the
negative imperative b0y with which it is collocated. That is,
(86) would not be grammatical as a paraphrase of (84)c.

(86) *chop b0y saang yuq boyh.
The reason (86) is not grammatical is that saang...boyh ex-
presses positive completion while the negative imperative
requires a negative completive form, i.e., tam. Finally, 
observe that in (84)e there appears with taam a final particle
Oh which occurs only with negatives as seen in (87).
The negative nature of taam is further reflected in (84)d where it cooccurs with phyaq, which latter may be glossed roughly as ever, though it has no meaning independent of an obligatory negative which must precede it. The only other form with which phyaq may cooccur is big not.

Thus, one might initially assume that INCOMPL taam is the nondecomposable negative pole of COMPL saang...boyh much as cold is in some sense a negative counterpart of hot. However, the evidence given above points to the fact that taam has a negative component which produces specific and regular syntactic effects. In view of this, INCOMPL may be decomposed into NEG + COMPL. (84)a would then be represented as (88) rather than (85).

The same processes which operated on (85) still obtain for (88), but the underlying negative predicate is made explicit, thus making for a more straightforward statement of the generalizations which relate to negatives.

The most common surface manifestation of NEG + COMPL is taam as a preverbal auxiliary. Sentence (84)e is peripheral as an overt pattern then, but even so may be taken to reflect rather directly the underlying configurations as diagrammed in (89).

It appears that (84)e results from maintaining the taam + proposition structure in which the relator form maq is inserted between the two basic constituents and agent preposing of aw
takes place just within the embedded proposition (Oh is optionally added as final particle following a negated proposition). It is possible for (89) to be realized in the more common pattern simply by preposing the agentive argument aw in front of the entire expression producing (90).

\[(90)\] aw taam mUyh am bri Oh
\[1-sg\ NEG-COMPL\ cut-brush\ give\ 2-dl\ NEG-past\]

*I haven't cut brush for them yet.*

3.3 Duration, durative (DUR)

A proposition is marked for durative aspect by the presence of qway remain, still as a preverbal auxiliary.

\[(91)\]

\(a\) gE qway blah loong
\[3-sg\ DUR\ chop\ wood\]

*He is still chopping wood.*

\(b\) yaq vi qway harIh
\[grandmother\ 3-pl\ DUR\ live\]

*Their grandmother is still alive.*

\(c\) Ih qway paq II
\[2-sg\ abide\ loc\ indef\]

*Where do you live?*

Observe that in (91)c the use of qway as an independent main verb in a clause conveys the meaning live, abide, be at. This notion of habitually continuing in a given state is the semantic basis for the aspectual usage of DUR. (91)a may be diagrammed as (92).

\[(92)\]

\[PROP\ \rightarrow\ PRED\ \rightarrow\ DUR\]

\[ARG\ \rightarrow\ PROP\ \rightarrow\ PRED\ \rightarrow\ blah\ chop\]

\[ARG\ \rightarrow\ PROP\ \rightarrow\ PRED\ \rightarrow\ AG\]

\[ARG\ \rightarrow\ gE\ 3-sg\]

\[ARG\ \rightarrow\ PROP\ \rightarrow\ PRED\ \rightarrow\ PAT\text{(i)ent)}\]

\[ARG\ \rightarrow\ loong\ wood\]

Predicate lifting adjoins blah to DUR, agent preposing places the gE in front as subject, and DUR is realized as qway.

There is an arbitrary logical sense in which DUR and NEG + COMPL might both be viewed as characterizing incompleted events. The natural language (semantic) logic of the situation, however, decrees that they are conceptually distinct. NEG + COMPL (taam) focuses on the end point of the event, declaring
that it has not been reached. DUR is perhaps more neutral, focusing on an event which has been initiated and which continues in the same fashion.

3.4 Imminence (IMMIN)

An event which is on the verge of taking place is made explicit by the expression waq gyam in preverb position.

(93) a. ong gE waq gyam kwI
son-in-law 3-sg IMMIN sleep

His son-in-law is about to go to sleep.

b. mat hu waq gyam kIh boyh
eye day IMMIN fall COMPL

It is just about sunset already.

The form waq is elsewhere used as an independent verb meaning want, while gyam always seems to express imminence and its occurrence alone may always be taken as an elliptical form of waq gyam. The semantic connection of want with imminence is not difficult to appreciate. That it is an areal notion is suggested by comparing the Rengao sentence (94)a with the Vietnamese sentence (94)b.

(94) a. waq mE boyh
IMMIN/want rain COMPL

It's about to rain.

b. Trõi muõn mula
sky IMMIN/want rain

It's about to rain.

The waq of (94)a is a reduced form of waq gyam (IMMIN) and being a meteorological sentence there is little danger of its being misinterpreted as want instead of about to. But notice the ambiguity of (95)a as either (95)b or (95)c.

(95) a. gE waq hlat
3-sg IMMIN/want die

b. He is about to die.

c. He wants to die.

The interpretation (95)b views waq as paraphrasable as waq gyam and based on the semantic array (96).

(96) a. PROPPRED — IMMIN——waq want
ARG — PROP PRED — hlat die
ARG — PROP PRED — PAT
ARG — gE 3-sg
b. IMMIN (hlat (PAT (gE) ))

Interpretation (95)c, on the other hand, is associated with a semantic expression something like (97).

(97) PROP  
    PRED — wag
    ARG — PROP — PRED — PAT
    ARG — gE 3-sg
    ARG — PROP — PRED — hlat die
    ARG — PROP — PRED — PAT
    ARG — gE 3-sg

Sentence (95)c then is not aspectual and involves the two-place predicate wag want which takes a proposition as one of its arguments.

Example (93)b reflects that fact that IMMIN very often co-occurs with COMPL (bovi) though they are in principle independent aspects. The significance of this combination is not that the "setting of the sun" has been fully achieved but that the state of imminence of that event has completely arrived, i.e., IMMIN is embedded below COMPL as in (98).

(98) PROP  
    PRED — COMPL
    ARG — PROP — PRED — IMMIN
    ARG — PROP — PRED — klih fall
    ARG — PROP — PRED — PAT
    ARG — mat h1 sun

3.5 Persistence (PERS)

An event which is in process and which is viewed as continuing despite some apparent obstacle, or beyond some normal limit, is signaled by the form khom.

(99) a. kap0 pataw khom rook troong ba water buffalo rich-man PERS follow path 1-dl-excl

The rich man's water buffalo kept on walking up our path.

b. bya khom takAy thoy ay princess PERS order like so

The princess persisted in giving orders to that effect.
c. koon aw kraaw khom, khom
    child i-eg call PERS

    My child called over and over again.

The word khom never appears as anything but an aspectual predicate. It occurs in two surface positions. The first one is in the preverbal slot as in (99)a,b. Sentence (99)a may be partially represented as (100).

(100)

PROP — PRED — PERS
    ARG — PROP — PRED — rook follow
    ARG — kap0 pataw rich man's water buffalo
    ARG — troong ba our path

As before, the predicates rook and PERS are associated by a predicate-lifting process, the appropriate argument is preposed as subject, and PERS is realized as khom.

The second configuration involving PERS is of type (99)c. This realization is especially typical of dramatic narrative discourse and I take it that the speaker's choice of surface forms relies directly on such factors for its determination, though I offer no specific formulation here (just a label on PROP). (99)c is based on (101).

(101) a.

PROP — PRED — PERS
    (Dramatic Narrative)
    ARG — PROP — PRED — kraaw call
    ARG — koon aw my child

b. PERS (kraaw (koon aw))

c. (kraaw (koon aw)) PERS

d. koon aw kraaw PERS

One may conceive of (99)c resulting from a base configuration roughly like (101)a. Referring to formulation (101)b as a linearized version of (101)a, observe that the proposition (kraaw (koon aw)) as the only argument of the predicate PERS is preposed following a pattern very common for one-place predicate expressions--this results in (101)c. Again, within the propositional argument itself, the argument koon aw of the predicate kraaw is preposed, resulting in (101)d. Finally PERS in this position is obligatorily manifested by at least two (and as many
as four) occurrences of *khom* depending on the narrator's enthusiasm.

3.6 Affirmation (AFFIRM)

To affirm (or confirm) emphatically that a proposition obtains, the form *dadek* truly, indeed is employed.

(102) a. saang plk pagaang hlat harIh, gE y0ng dadek
    COMPL apply medicine die live 3-sg arise AFFIRM
    After applying the medicine of life and death, he arose indeed.

    b. miq nu hlat dadek
    mother 2-sg die AFFIRM
    Your mother is dead, indeed!

    c. aw kwaq yaaw kA nu. aw waq qway oh
    1-sg not-want more 2-sg 1-sg want abide yo-sib nu
dek
    2-sg AFFIRM
    I don't want you any more. Indeed, I want to live with your younger sister.

Aspectual predicates in general reflect the speaker's assessment of the event of the proposition. AFFIRM especially conveys the idea that the speaker is underscoring the force of the assertion.

Sentence (102)b, for example, may be diagrammed as (103).

(103)

```
PROP  PRED — AFFIRM
    ARG — PROP — hlat die
    ARG — PROP — hlat die
    ARG — mig nu your mother
```

The argument of AFFIRM appears in surface structure preposed in front of AFFIRM, the PAT argument *mig nu* is also positioned in front of *hlat* and AFFIRM is realized as *dadek* (or as in (102)c simply *dekk*).

3.7 Immediacy (IMMED)

Direct and immediate action is marked by the form *hIg*.

(104) a. bri bEq hIg hyE
    3-dl make IMMED house
    They two built a house forthwith.
b. kit drōk gyAng hīq koon manUyih
   frog become IMMED child person
   The frog immediately turned into a human child.

c. bya krō hīq
   princess cry IMMED
   The princess right away started crying.

Regardless of the type of verb in the main proposition, i.e., whether transitive or intransitive, the form hīq intervenes between that verb and any other postposed complements.

Irrelevant problems of role structure aside, we may consider (105) a general semantic representation of (104)a.

(105)

\[
\text{PROP} \rightarrow \text{PRED} \rightarrow \text{IMMED}
\]

\[
\text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{bēq build}
\]

\[
\text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{AG}
\]

\[
\text{ARG} \rightarrow \text{bri} 3-dl
\]

\[
\text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{PAT}
\]

\[
\text{ARG} \rightarrow \text{hyē} house
\]

In other aspectual predications the operation of predicate lifting resulted in the aspectual predicate being preposed directly before the main surface verb as a preverb. With IMMED, however, it seems that predicate lifting continues to associate the two predicates IMMED and bēq but that surface idiosyncracies require that hīq is permuted to a spot following the verb. Agent preposing guarantees that bri appear at the beginning of the entire sentence.

3.8 Surprise (SUR)

A proposition which conveys information contrary to one's expectations is signaled by the form raaw.

(106) a. raaw kit drōk gyAng koon ngi
   SUR frog become child baby
   Lo and behold, the frog turned into a human baby.

b. tala aw raaw taqdoom hmu
   individ 1-sg SUR adhere-to rock
   What in the world? I'm stuck to the rock!

c. hOy bya lUyq, nu raaw qwāy ah ku
   o princess lUyq 2-sg SUR abide toward proximal
Oh Princess Luy, of all things, here you are!

As a predicate which determines one propositional argument, SUR has its ultimate realization in the form raaw and in constrained to occur either sentence initially or verb phrase initially. Both of these surface versions are based on a common underlying array. Consider (107) as an abbreviated representation of (106)a.

(107) a. PROP — PRED — SUR
    ARG — PROP — PRED — gyAng
    ARG — kit drok
    ARG — koon ngi

b. SUR (gyAng (kit drok, koon ngi))

c. SUR kit drok gyAng koon ngi

In the case of (106)a, argument preposing occurs just within the confines of the lower proposition, positioning kit drok ahead of its own predicate gyAng (but not ahead of SUR) as in (107)c. The realization of SUR as raaw yields (106)a. Reference to (106)b,c shows that those sentences have undergone a somewhat different operation. Predicate lifting has associated the lower predicates with the higher predicate, which is realized as raaw and the verbs tag doom and gway. In these instances the appropriate arguments have, however, been preposed to the front of the entire sentence, not just to the front of the embedded proposition.
4 Modal Predicates

Traditional logical approaches to modality usually involve the concepts possibility, necessity, contingency, and sometimes impossibility. If these concepts have presented a challenge to logicians (cf. Carnap 1964), they have been at least as baffling to grammarians (cf. Fillmore 1968b:393). The difficulty in understanding modality in natural language seems to derive from the noncongruence of grammatical and semantic accounts of what purports to be the same topic. The relation of modality to aspect adds further ramifications. Schiffman (1969), for example, separated modals and aspectuals in Tamil, while Newmeyer (1969) described English epistemic modals as aspectual. In what follows I will discuss two predicates in Rengao that approximate the familiar notions of modality.

4.1 Possibility (POSSIB)

In his study of English modals, Hofmann (1966) has made a distinction between what he terms "epistemic" and "root" modals. From a purely semantic viewpoint, the former act as predicates of an entire proposition, while the latter function with respect to the surface-structure subject within the proposition. In addition there are certain syntactic features which seem to confirm the distinction.

In Hofmann's analysis can meaning possibility is distinct from can meaning ability, the former being epistemic, the latter being a root modal. Possibility is seen to characterize in a more abstract way the entire proposition; ability on the other hand is associated directly with the grammatical subject (which must be animate).

In Rengao the lexical form khōg means POSSIB in the broadest sense, i.e., including ability and possibility. According to my interpretation of the phenomena underlying the distinction between epistemic and root modals, POSSIB is a two-place semantic predicate determining a proposition and a patient argument. This entire structure in turn functions as one of the arguments of the higher predicate CAUSE. (Note that Newmeyer 1969, 1970a has suggested that in English, CAUSE as a component added to certain epistemic modals, seems to yield certain root modals, e.g., can 'able' may be thought of as cause plus possible.) The other argument of cause (i.e., the causal source) introduces the distinction between epistemic and root modality. If the causal source involves conditions of the intrinsic nature of reality, custom, or logical system, then the causal result
will be interpreted as epistemic (i.e., possibility). If, however, the causal source argument involves conditions relating to one of the arguments in the proposition embedded below the modal predicate in the Result Argument, then a root modal interpretation is produced (i.e., 'ability'). To illustrate these matters I provide the sentences of (108).

(108) a. nu b1q kh0g qway paq ku
    2-sg NEG POSSIB abide loc proximal
    You can't live here!

b. Thoy lI nhEn kh0g tok ruyh hlat
    like indef 1-pl-excl POSSIB ascend elephant die
    How can we ride a dead elephant?!

The sentences of (108) are epistemic in the sense that POSSIB is predicated on the basis of external facts which predetermine what is in the realm of possibility and what isn't. In (108)a the rich man in a traditional tale tells his only daughter that it is impossible for her to live in his house any longer because of her unforgivable breach of Rengao social norms in suddenly turning up pregnant as an unmarried girl. A semantic schematization of (108)a is (109).

(109)

PROP -- PRED -- CAUSE

ARG (source)

ARG (result) -- PROP -- PRED -- bi1q NEG

ARG -- PROP -- PRED -- POSSIB

ARG -- nu you

ARG -- PROP -- PRED -- qway live

ARG -- nu you

ARG -- paq ku here

The array of (109) may be interpreted as reconstructing the information that "one's being pregnant out of wedlock in violation of village mores brings disgrace"

The material associated with the causal source may or may not be specifically enunciated linguistically, but would be if one were to ask, "Why can't she live at home any more?" I take it that these external causal factors produce the sense of "epistemic modal." That is, I am suggesting that
whether POSSIB functions as a one-termed predicate with a proposition as its argument is not the crux of the problem, for POSSIB always appears to me to involve a patient (nu in the above case) as well as a proposition and is thus a two-place predicate.

Though I will not give a semantic representation for it here, note that in (108)b POSSIB is similarly controlled by factors that somehow inhere in the very nature of the speaker's reality. That is, one does not ordinarily climb on board an elephant that had been lying dead and bloated in the field for several days and expect to take a ride. The rhetorical question (108)b serves to declare emphatically that such is not a possibility for them by the very nature of experience.

The form khOq also turns up in sentences which bear a semantic flavor more in the direction of "root modals." Consider for example (110).

(110) a. kadrI khOq paay poor
   wife POSSIB cook rice
   My wife can cook rice.

b. gE khOq harIh koon aw
   3-sg POSSIB CAUSE-live child 1-sg
   She can bring my child to life.

c. gE yOng bIq khOq
   3-sg arise NEG POSSIB
   He couldn't get up.

d. Tadrong poyq rangao aw khOq
   matter speak Rengao 1-sg POSSIB
   As for speaking Rengao, I can do it.

The examples of (110) might seem superficially to involve a greater degree of association between the subject and the modal khOq. I think, however, that such an apparent relation derives again from the nature of the material in the source argument associated with the higher predicate cause. Let us assume for present purposes that (111) underlies (110)a.
The semantic representation (111) is taken to convey that "my wife's mother taught her to cook rice, and she has been doing so every day since she was seven years old is the causal source which results in the fact that it is now possible for my wife to (that she) cook rice." Thus, the wife's previous experiences provide the basis for events which are now a possibility for her. The causal conditions involve her as does the current proposition. Note that POSSIB in (109) was based on conditions independent of the embedded proposition or any of its arguments, while (111) involves kadri wife and conditions which affected her previously. Again, note that the material contained in the causal source may or may not be present explicitly. I think this kind of data supports the claim that grammar cannot be adequately reconstructed if we must limit ourselves to an analysis of sentences alone--especially surface structure sentences. Grammar must involve the semantics of the speech situation and the scope of broad discourse structures.

Example (110)b, in the context of its original use, based the possibility of a certain woman bringing the child back to life on the fact that that woman possessed a special magical "life and death" medicine--that fact is the source of her ability.

Sentence (110)c serves to show that kh0q (POSSIB) may appear as a main verb, not only as a preverbal as in (110)a,b. Let (112) represent the underlying form of (110)c, ignoring for these purposes certain details of role structure.
To realize the surface form (110)c a version of predicate lifting takes place which does not affect the predicate of the lowest proposition (i.e., yOng arise), but which adjoins POSSIB (khOq) to NEG (bIq), resulting in a string approximately like (113)a.

(113) a. bIq khOq (gE, (yOng gE))
    POSSIB 3-sg arise 3-sg
b. yOng gE bIq khOq gE

c. gE yOng bIq khOq gE

d. gE yOng bIq khOq ∅
    3-sg arise POSSIB

The topic preposing of the proposition yOng gE ahead of the whole sentence results in (113)b. The further normal topic preposing of gE ahead of its immediate predicate yOng yields (113)c. Finally the third person reference marked by the identical second occurrence of gE at the end of (113)c receives no overt form as shown in (113)d.

Given (113)a as a starting point there is an alternative derivation which produces a paraphrase of (110)c in which POSSIB appears as a preverbal auxiliary rather than a main verb. (113)a is reproduced as (114)a.

(114) a. bIq khOq (gE, (yOng gE))
    POSSIB 3-sg arise 3-sg
b. gE bIq khOq (yOng gE)

c. gE bIq khOq yOng ∅
    3-sg POSSIB arise

If instead of topicalizing the entire proposition by preposing it, one topicalizes the third person referent, then gE appears sentence initial as in (114)b. The second marker of third person is deleted as in (114)c, and a grammatical alternative to (113)d is realized.
I have included (110)\textsuperscript{d} as an example, which although not so common as other patterns, serves to show that \textit{khOq POSSIB} takes a patient argument, in this case \textit{aw l-sg.}. In addition to the normal requirement that \textit{aw} be preposed ahead of \textit{khOq}, a further preposing of the basic proposition is grammatical. This construction would be like "speak Rengao I can" or "him I like."

4.2 Necessity (NECESS)

Necessity is conveyed by the form \textit{thay} as in the examples of (115).

(115) a. gu qyoh thay ngwaan gu geh
   \textit{pl young NECESS obey pl elder}
   Young people must obey their elders.

b. miq gah kadrI pang miq gah kadrang
   \textit{mother towards woman and mother towards man}
   thay poyq danUh
   \textit{NECESS converse}
   The woman's mother and the man's mother must talk.

c. basEh thay ragAy
   \textit{wizard NECESS clever}
   A wizard must be clever.

In the sentences above NECESS functions as a predicate determining an underlying proposition and a patient argument. Furthermore the entire structure is assumed to be associated with a higher predicate \textit{CAUSE} as was the case with POSSIB discussed in the preceding section. Suppose (116) underlies (115)a.

(116)

\[
\text{PROP} \rightarrow \text{PRED} \rightarrow \text{CAUSE}
\]

\[
\text{ARG (source)} \rightarrow (\text{Rengao customs and social values})
\]

\[
\text{ARG (result) \rightarrow PROP} \rightarrow \text{PRED} \rightarrow \text{NECESS}
\]

\[
\text{ARG-gu qyoh young people}
\]

\[
\text{ARG-prop-pred-ngwaan obey}
\]

\[
\text{ARG gu qyoh young people}
\]

\[
\text{ARG gu geh old people}
\]

This is to be read as "Rengao custom and social values are the causal source (reason why) producing the effect (result) that it is necessary for young people to (that they) obey the village elders." The source argument of \textit{CAUSE} may be taken for granted.
by the speaker, it may be enunciated elsewhere in the discourse, or it could be attached syntactically to the result proposition. Surface markers of such a source argument are *wa kA because of or kyawq kA according to preceding the sentence conveying the source information.

On the question of an epistemic versus root modality distinction in connection with NECESS, Newmeyer (1970b:196) has noted for English that "epistemic must implies obvious truth--what is predicated happens by its very nature. Root must means to insure the truth or happening of a predicate or to 'require'." In this light, the proposition in (115)a is necessary because of social values, (115)b is necessary because Rengao custom of arranging a marriage dictates among other things that mothers on both sides arrive at an agreement, (115)c is necessary because to be a baxEh is to be clever by definition. Thus all the sentences of (115) seem to involve an epistemic sense of modal NECESS.

Let us consider, however, the sentences of (117).

(117) a. *aw thay* rot babi
   1-sg NECESS buy goat
   I must buy a goat.

b. bya thay *aw* rot babi
   princess order 1-sg buy goat
   The princess ordered me to buy a goat.

In (117)a there is an ambiguity with reference to the epistemic-root distinction. An epistemic reading of the sentence would mean that in the nature of things "I must buy a goat." This would be true, for example, if one had committed a particular type of social transgression for which custom dictates the sacrifice of a goat rather than a pig, chicken or water buffalo. However, (117)b makes it clear that the primary reason may simply be because someone told me to buy a goat. This would be a "root modal" reading in which necessity is based on requirement in some less cosmic sense. But note that to the proposition *aw rot babi* there is an added agent *bya the princess* which functions to bring about the necessity. In fact, the lexical item *thay* is most naturally translated *order, command* when it is associated with an agent, but it is translated *must* when no such agent is present. I take it that these two uses of *thay* do not constitute simply accidentally homophones, but reflect a deeper association of the concepts of NECESS and imperativity or injunction.

Let us diagram as (118) the epistemic reading of NECESS for (117)a, i.e., such that the basis of that necessity is in the very nature of the system within which it functions.
The semantic representation (118) is meant to express that "because Rengao religious tenets prescribe that the transgressors provide a goat for sacrifice under x conditions therefore as a result it is necessary for me that I buy a goat." The source may be made explicit by the phrase ywa ka khOy Rengao...due to Rengao customs... or it may simply be assumed by the speaker in view of the context of the situation or common knowledge. The important thing is that the necessity is understood as deriving from a rather basic set of facts in the world view of those who are communicating with one another. I understand this to be the semantic basis of epistemic modality.

Another reading of (117)a takes bya princess to be the causal source for the necessity of the event. Suppose this reading is diagrammed as (119).

The string (120)a is equivalent to (119) while (120)b and following show the application of independent conditions which produce (117)a with a "root modal" reading of necessity as "requirement."
(120) a. \text{CAUSE (bya, NECESS (aw, (rot (aw, babi)) ) )} \\
\text{princess} \hspace{1cm} 1\text{-sg buy} \hspace{1cm} 1\text{-sg goat}

b. \emptyset \hspace{1cm} \text{NECESS (aw, (rot (aw, babi)) ) )}

c. \text{aw} \hspace{1cm} \text{NECESS (rot (aw, babi))}

d. \text{aw} \hspace{1cm} \text{NECESS rot \emptyset babi}

e. \text{aw thay rot babi} \\
\text{1\text{-sg must buy goat}

First of all, as mentioned earlier, one need not verbalize what causes or necessitates an event. The selection of that option may be termed "cause deletion", and as (120)b shows, this involves giving no overt representation to the predicate \text{CAUSE} or to its argument \text{SOURCE}. Note that this has occurred in both the epistemic (118) and the root modal (119) interpretations of (117)a. The lack of an explicit specification of the causal source produces an ambiguity, since the epistemic-root distinction is based on the nature of what necessitates an event. Returning to the derivation at (120)c the patient argument \text{aw} appears sentence initially according to topic preposing conditions. In (120)d a very general requirement of identity reduction guarantees that the second reference to \text{aw} receives no surface realization. Matters of a similar nature in English have been handled by a rule of "Equi-NP-Deletion" or "Identical Noun Phrase Deletion," (cf. Jacobs and Rosenbaum 1968:27). I will not be concerned here with questions of reference though they are important (cf. McCawley 1968c:136; Lakoff 1968). Finally, \text{NECESS} is realized as preverbal \text{thay}, translated \text{must}.

Suppose, however, that the \text{CAUSE} deletion option is not taken and one wishes to specify explicitly that \text{bya princess} was somehow the reason for buying the goat. To illustrate this alternative let us repeat (120)a as (121)a to form the basis for the derivation.

(121) a. \text{CAUSE (bya, NECESS (aw, rot (aw, babi)) )} \\
\text{princess} \hspace{1cm} 1\text{-sg buy} \hspace{1cm} 1\text{-sg goat}

b. \text{CAUSE (bya, aw NECESS (rot (aw, babi)) )}

c. \text{CAUSE (bya, aw NECESS (rot \emptyset (babi)) )}

d. \text{yw\text{a KA} bya aw thay rot babi} \\
\text{Because of the princess, I must buy a goat.}

The first requirement of (121) is that \text{aw}, the patient argument of \text{NECESS}, is preposed ahead of \text{NECESS} as topic of the result argument, thus yielding (121)b. As before, the second identical reference to \text{aw} is deleted in (121)c. Finally in (121)d, \text{CAUSE} is manifested by \text{yw\text{a KA}} because of and \text{NECESS} is \text{thay must}. 
Optionally, the result clause aw thay rot babi may also be permuted ahead of ywa kA bya.

I return now to the question of thay used as in (117)b bya thay aw rot babi the princess ordered me to buy a goat. Is this imperative thay to be associated with the necessitative thay? I think it is. I suggest that just as other instances of modals involved a causal source, so with thay order an imperative speech act (see 2.3.2) is posited as the basis of the necessity. Suppose (122) is the semantic representation of (117)b.

(122)

\[
\text{PROP} \xrightarrow{\text{PRED-CAUSE}} \text{ARG (source)} \xrightarrow{\text{PROP}} \text{PRED-IMP} \\
\quad \text{ARG-I (speaker)} \xrightarrow{\text{bya-princess}} \\
\quad \text{ARG-II (addressee)} \xrightarrow{\text{aw l-sg}} \\
\quad \text{ARG-III-PROP} \xrightarrow{\text{PRED-ROT-buy}} \\
\quad \text{ARG-aw l-sg} \\
\quad \text{ARG-babi goat} \\
\]

\[
\text{ARG (result)} \xrightarrow{\text{PROP}} \text{PRED-NECESS} \\
\quad \text{ARG-aw l-sg} \\
\quad \text{ARG-PROP} \xrightarrow{\text{PRED-ROT buy}} \\
\quad \text{ARG-aw l-sg} \\
\quad \text{ARG-babi goat} \\
\]

(122) is to be read as 'that the princess commanded (a speech act) me to buy a goat is the causal source of it being necessary for me to buy a goat' (i.e., I did it because she told me to). For convenience let the string (123)a, as equivalent to (122), be the starting point for deriving (117)b.

(123)

a. CAUSE (IMP (bya, aw rot(aw, babi)), NECESS (aw, rot(aw, babi)))

b. CAUSE (IMP (bya, aw, rot(aw, babi))), NECESS(aw) \emptyset
c. CAUSE-IMP-NECESS (bya, aw, rot (aw, babi)), (aw)
d. bya CAUSE-IMP-NECESS (aw rot (aw, babi)), (aw)
e. bya CAUSE-IMP-NECESS (aw aw rot (\emptyset babi)) (aw)
f. bya CAUSE-IMP-NECESS (aw rot (babi)) \emptyset
g. bya thay aw rot babi

\textit{princess ordered me buy goat}
String (123)b marks the deletion of the second identical proposition \textbf{rot (aw, babi) buy (I, goat)}. (123)c shows the effect of predicate lifting whereby the highest predicates of the source and result arguments are adjoined to CAUSE. The imperative agent \textbf{bya} is prepocused as the topic of the entire sentence in (123)d. The agent argument \textbf{aw} of the embedded predicate \textbf{rot buy} is prepocused just ahead of its proposition in (123)e resulting in a repetition of references to \textit{l-sg (aw)} being deleted. Finally, the collection \textit{CAUSE-IMP-NECESS} is realized as \textbf{thay order}. I suggest that in some such fashion as this, \textbf{thay order} be viewed as representing an underlying speech act imperative as the causal source which necessitates the events in the following proposition.
5 Clause Predicates

Predicates of the kind which concern us in this section more closely compare with the traditional usage of the word, for I refer here to those semantic elements typically underlying verbs which determine the substantive participants of clauses (or "simple sentences").

The nature of the complex composed of clause predicate and participants has been described by Longacre (1964:35) in these terms:

In essence, the clause posits a situation in miniature (whether asserting, questioning, commanding, or equating). Predication clauses, in particular, have a tag-meme expressing the PLOT (normally manifested by some verb-like structure), one or more tagmemes expressing DRAMATIS PERSONAE (e.g., actor, goal, indirect object), and other tagmemes contributing PROPS, SCENERY, and LOCAL COLOR (e.g., instrument, location, manner, and time).

Along basically similar lines, Halliday (1968:179), distinguishing his concept of "transitivity" from "theme" said,

Transitivity is defined as relating to the experiential component of meaning...; the discussion has been confined to the expression of processes and the participants therein—syntactically, those functions having in general verbal and nominal realizations—although a full treatment of the experiential component in the syntax of the clause would take account of other features, the expression of time and place and other adjuncts to and conditions on the process.

Fillmore (1968a:23) observed:

In the basic structure of sentences, then, we find what might be called the 'proposition', a tenseless set of relationships involving verbs and nouns (and embedded sentences, if there are any), separated from what might be called the 'modality' constituent.

Developing these ideas further, Fillmore (1970:50) called the "set of relationships" in the proposition "cases" and concluded that they represent a set of role types:

In my proposals on 'case grammar' I have assumed that the role types which one can refer to in describing
the semantic structure of predicates makes up a universally valid and reasonable well-specified set of concepts. I have assumed, too, that the role types are themselves unanalyzables, corresponding to elementary perceptions on the part of human beings concerning such matters as who did it, who experienced it, where it happened, what the result was, where a thing that moved ended up, where it started out, what moved, and a few others. I have convinced myself that certain role notions recur across widely variant languages, namely those for which one finds useful the terms Agent, Instrument, Location, Object, Patient, etc. I have found that many valid assertions about language can be made by describing the structure of their sentences in these terms.

Not only may the clause relationships be thought of as role types, but the various configurations of differing relationships constitute a basis for clause (or sentence) type. Fillmore (1968a:21), for example, said,

...the various permitted arrays of distinct cases occurring in simple sentences express a notion of 'sentence type' that may be expected to have universal validity, independently of such superficial differences as subject selection. The arrays of cases defining the sentence types of a language have the effect of imposing a classification of the verbs of the language...

Halliday (1968:181) observed likewise that,

...the grammar of processes and the participants does constitute, in English, a distinct area of enquiry... and the problem of the basic contrasting clause types of English is one that can be discussed in terms of process and participant functions...

In summary, then, two important aspects of clause structure to be described are a) the set of role types expressing various basic relationships, and b) the set of clause types defined by combinations of cooccurring role types. Of course, closely bound up with these considerations is the recognition of verb types.

5.1 Role Types

The case or role functions associated with "verb-sized" predicates have been conceived of as a "labeled relation" which holds between a verb and its accompanying nouns, represented in Fillmore (1968a:32ff) as:
John gave the books to my brother.

Under Fillmore's formulation the constituent designated *kasus* dominates the overt markers (e.g., prepositions) of the more abstract cases (i.e., object, dative, agent, etc.). The fact that case stands in a somehow "external" relation to the basic NP, easily leads to the position that case itself be treated as a function or predicate which determines the NP in question (or its underlying representation). Thus Grimes (1975:21) diagram the sentence, "He put the book on the table" as follows (where letters to the right of the = sign are indicators of reference and A' is a terminal argument):

A linguistic approach which talks about underlying structural relationships in terms of predicates and arguments is able to
interpret the relational concept of case or role as a predicate in a very natural way. Although roles are not always fully diagrammed as predicates in this paper, but are rather simply attached as labels to underlying constituents as a short-hand convention, I assume that they are indeed best considered to be predicates. I think that this view favorably reflects the fact that they mark functions in the clause. Further, the surface markers which signal these role functions turn up in many languages as relational words, sometimes even specialized forms obviously related to verbs.

Similar to Halliday (1968:179ff), I furthermore recognize a systematic clustering of role types into more general ergativity classes. Thus some role types will share the features of a causal or effective function in a clause while other roles will express varieties of the affective or undergoing functions. Still other role types (e.g., time, location) are apparently outside of such a classification altogether.

In enumerating some of the role types below, I use labels familiar from writings of Fillmore (1968a:24; 1968c:77) and Chafe (1970), but with certain differences: a) I don't use all their role labels; b) I don't use only role labels; c) I don't consider the roles fundamentally irreducible primitive relations.

5.1.1 Agent (AG): effective. The function in which the associated referent is perceived as the animate instigative cause of the event identified by the main predicate is AG.

This role is illustrated in the sentences below where the argument with an AG-function is underlined.

(126) a. tadam bAt manAt
    boy to dam a dam
    The boy is making a dam.

b. mU ywan tek tamaam kA mU rangaaw
    group Vietnam sell goods to group Rengao
    The Vietnamese sell goods to the Rengao.

Constructions containing a causative agent are exemplified in (127).

(127) a. miq pakwi koon gE
    mother cause-sleep child 3-sg
    The mother is putting the child to sleep.

b. hyir paywa kA aw xe ku
    Hyir cause-use cplmt 1-sg vehicle this
    Hyir is lending me this vehicle.
c. kyak taqnhUq gU drUh
    creature cause-fear pl girl

    The creature frightened the girls.

Without discussing here the general treatment of causatives, let it be noted that certain verbs may be morphologically marked as causative by the prefixes pa- or ta-. Whether or not the verb root is basically "transitive" or "intransitive," the argument appearing underlined in the topic position is the ultimate instigator of the event and functions in an AG role.

A further manifestation of AG in Rengao appears in reciprocal constructions as in (128).

(128) a. yang nEh koon ngok dUh tablah
    formerly children mountain also recip-attack

    In the old days the montagnards also fought each other.

    b. kapO bajAl
    water buffalo recip-butt

    The water buffaloes were butting each other.

The verbs marked with ta- or ba- prefixes above are so designated as reciprocal. The NP underlined is understood to be in an AG function in these cases. It is, of course, also understood to represent the PAT function as well, for by its very nature the reciprocal expression conlates two distinct role functions into one surface structure constituent.

5.1.2 Instrument (INS): effective. The function in which an involuntary, (typically) inanimate, noninstigative direct causal referent is associated with an event is INS.

    This predicate includes the instrumental notion in the narrow sense of something used by an agent to accomplish an end as in (129), where the constituent in an INS function is underlined.

(129) a. gyAq peng jIl ing maneng
    Gyaq shoot deer with crossbow

    Gyaq shot the deer with his crossbow.

    b. gE koh loong chaqba ing chOng
    5-ag chop wood branch with axe

    She chopped the branch off with an axe.

It may be noted in passing that instrumental nouns (among other forms) are produced by nominalizing certain verbs. For example, in (129) a maneng crossbow is really a shooter, deriving from peng shoot infixed with -an- nominalization (plus a morphophonemic rule converting /p/ to /m/ in that context).
A slightly different effect of this predicate INS is manifested in what might be thought of as "means." I assume that any distinction between "means" and "instrument" (in the narrowest sense of the latter) does not inhere in the underlying role function but in the nature of the referent. The objects in (129) were physical implements. Those in (130) are similar, but are perhaps more generally objects which play a part in accomplishing some activity.

(130) a. gE pIIk Inq katak rangyaang
    3-sg paint with sap species of tree
    He painted himself with rangyaang sap.

b. nhEn pajraaw Ing ir, Ing chUUr
    1-pl celebrate-rice-growth with chicken, with pig
    We celebrate the rice growth with chickens and pigs
    (i.e., a feast).

The surface form Inq is glossed "with" in these examples, but it is difficult to give an all embracing meaning to it as it is to "of" and "by" in English, because Inq is also used with other role functions to mean "from" and "together with." This simply reflects the linguistic fact that patterns of grammatical form and patterns of semantic form are not congruent. Rules are required to relate elements in the two systems.

A final manifestation of the role predicate INS occurs in contexts in which no agent is present but in which there does exist an involuntary causal referent. Consider (131).

(131) mU kasEng bit chak gE
    group bone stab body 3-sg
    The bones pierced his body.

Chafe (1970:155) expressed uncertainty as to whether nouns like rock in the sentence the rock broke the window are really "instruments" or not. Since it is not intrinsically "potent" (i.e., possessing volitional potential to act), he does not construe it as a normal agent, but considers the possibility of interpreting it "derivatively potent." But my interpretation of mU kasEng bones, for example, in (131) as INS depends precisely on the fact that kasEng is, in accord with the definition of that role, involuntary, inanimate, and noninstigative causal in function. It does not seem necessary to create a new category for this function when all that distinguishes it from the "implemental" and "means" uses of (129) and (130) respectively is that an additional role agent is also associated with these latter examples while none is with kasEng. In short the concept INS is here broadly conceived as one type of effective factor and should not be limited by one's previous conceptions about
the English word instrument.

5.1.3 Patient (PAT): affective. The function in which a referent (animate or inanimate) undergoes, experiences, or is somehow directly affected (often involuntarily) by an event or state is PAT.

A referent which is affected by an event expressed in an action verb has a PAT function and is regularly manifested by the surface direct object. When such a referent is animate, the term experiencer is appropriately applied to it, as suggested by Fillmore (1968c:77). This relation was also earlier called dative by him (1968a:24). Consider (131), where the constituent in PAT function is underlined:

(131) a. tarIt choh jEk boyh
    Tarit hoe field COMPL
    Tarit has hoed the field already.

b. kadrI gE yok chOng kal loong
    wife 3-eg take axe cut tree
    His wife took an axe and cut the tree.

c. sIt tuh taang
    Sit hit Tang
    Sit hit Tang.

A referent which experiences a psychological state may also be considered to have a PAT function. This is exemplified in (132).

(132) a. baq drUh meh s0k jaat
    father girl that happy very
    That girl's father is very happy.

b. yaq p0m loq dIq dang
    granny Pom know everything
    Mrs. Pom knows everything.

c. bya lUyq hEng 'uq daak
    princess Luyq desires drink water
    Princess Luyq wants a drink of water.

Thus verbs expressing "be happy", "know", and "desire" require an associated argument with the role of PAT.

A referent which experiences a perceptual process (cf. Chafe 1970:144ff) is also in a PAT relation to the total event.

(133) a. chin dI hloq jIl
    Chin Di see deer
Chin Di saw the deer.

b. drit tAng b0q pataw poq thoy ay
   Drit hear grandfather rich-man speak like so
   Drit heard the rich man speaking like that.

Experiential verbs require an animate referent in a PAT relation. These expressions, however, may be further embedded in a causative construction in which an added referent functions as AG and CAUSE is manifested by a verbal prefix (pa-, ba- or ta-). Compare the simple experiential forms in (134) with their causally augmented versions in (135).

(134) a. vi hlat
   3-pl die
   They died.

b. aw hloh boyh
   1-sg understand COMPL
   I understand already.

(135) a. koon ruyh bahlat vi
   child elephant cause-die 3-pl
   The elephant child killed them.

b. baxEh bahloh aw
   wizard cause-understand 1-sg
   The wizard enlightened me.

Note the syntactic fact that while the semantic role function of the (underlined) PAT arguments does not change between (134) and (135)a and b respectively, the addition of an AG in (135) requires the preposing of the argument with the AG function into the topic position.

5.1.4 Benefactive (BEN): affective. The function in which the referent indirectly affected by the main clause predicate is benefited in some broad sense is termed BEN.

The sentences of (136) exemplify the BEN role function.

(136) a. beq chop koh am aw gay jra
   IMP 2-pl cut give 1-sg crutches
   You all cut me some crutches!

b. vi qnak am ga maneng
   3-pl cook give 3-sg crossbow
   They cocked the crossbow for him.

c. aw hagmoon am kA Ih
   1-sg narrate give cp1mt 2-sg
I'll tell you a story.

Earlier it was noted that role types may be considered themselves to be predicates. This position is enhanced by the fact that BEN is typically signaled by the form am, which also functions as a main verb meaning "give." Suppose (137)a,b are semantic representations of (136)b for example.

(137) a. PROP — PRED — qnak cock
     PROP — PRED — BEN — am give
     ARG — ga 3-sg
     PROP — PRED — PAT
     ARG — maneng crossbow
     PROP — PRED — AG
     ARG — vi 3-pl

b. qnak (AG (vi), BEN (ga), PAT (maneng))
c. AG (vi) qnak (BEN (ga), PAT (maneng))
d. Ø vi qnak am ga Ø maneng

To the underlying string (137)b, a linear equivalent to (137)a, is applied the constraint of topic argument preposing which specifies the expression AG (vi) as the sentence initial constituent. Then the abstract predicates AG and PAT are realized here as Ø. However, BEN is realized as am, thus reflecting the underlying predicate in the role function BEN.

Chafe (1970:148) suggests that a "possessor" may also be interpreted as a "beneficiary." That is, the underlined elements of (138) would be determined by BEN.

(138) a. ih biqi i tang doq
     2-sg NEG have-exist chair
     You don't have a chair.

b. chin di i kadrI boyh
   Chin Di have-exist wife COMPL
   Chin Di has a wife already.

c. aw jah poor
   1-sg have-exist rice
   I have some rice.

This interpretation has some attraction. Notice that the main verbs i and jah are both glossed have-exist, for if the argument in a BEN function is not present, the remaining argument which is in an OBJECT (OBJ) function may be said simply to exist or
obtain. Thus for example (138)c could appear as (139).

(139) jah poor
    have-exist rice

    There is some rice.

Here the OBJ argument (see 5.1.5 below) 'some rice' exists, but with a BEN argument specified (as in 138c), it exists "to his benefit" or "for him," that is, he has it. Recall that earlier I said am give marked the BEN function. Now notice that if one introduces a causal agent to (138)c, one derives a string with the sense of "someone causes rice to have-exist benefitting me." But this is precisely the effect of the overt presence of am give as in (140).

(140) gE am aw poor
    3-sg give 1-sg rice

    She gave me some rice.

Clearly gE she has the AG function, but the important point is that the role predicate BEN determines aw i which is in Chafe's terms, the "beneficiary." BEN is, moreover, realized as the main verb of the clause in the form am give.

5.1.5 Object (OBJ): existential. The function in which the simple presence, existence, or orientation of a referent is associated with the main event, process, or state is designated OBJ.

Fillmore (1968a:25) defined an Objective (O) case as

The semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the verb is identified by the semantic interpretation of the verb itself; conceivably the concept should be limited to things which are affected by the action or state identified by the verb.

In Fillmore (1968c:77), however, a case with the same designation was characterized as "the entity that moves or changes or whose position or existence is in consideration."

My characterization of the OBJ function is simply that it expresses the nonergative, more purely existential aspects of an argument.

As mentioned in connection with BEN above, OBJ is exemplified in sentences of the type in (141), where the items possessed or existent have an OBJ function.

(141) a. aw jah jen
    1-sg have-exist money

    I have money.
b. jah krwa maah paq kroong
    have-exist turtle gold at river
    There is a golden turtle at the river.

The underlying significance of (141)a is "money exists to the
benefit of me," while (141)b having no "beneficiary" is simply
"a golden turtle exists (located) at the river."

Expressions of mental states and processes like those in
(142) involve an existential OBJ argument (underlined):

(142) a. mu kraq loq kh0y rangaaaw
    pl older know custom Rengao
    The elders know the Rengao customs.

b. jAh nu waq aw, aw qway Ing nu
    if 2-sg want 1-sg 1-sg live with 2-sg
    If you want me, I'll marry you.

In sentences containing an orientational (e.g., LOC) predi-
cate as the main predicate, the referent whose position is in
question has an OBJ function.

(143) a. bag nu paq 1I
    father 2-sg at indef
    Where is your father?

b. bag aw pEng dra
    father 1-sg atop stand
    My father is on top of the hunting stand.

"Equative" expressions also involve OBJ arguments, as il-
lustrated in (144):

(144) a. thEr koon Ir
    Ther child Ir
    Ther is Ir's child.

b. xe aw xe meh
    vehicle 1-sg vehicle med-distal
    My vehicle is that vehicle.

c. gE manUy whole lem
    2-sg person good
    He is a good person.

d. klan bAy whole kAn
    python snake large
    Pythons are large snakes.

Sentences (144)a,b are instances of a clear-cut identity
relation between the two parts (NP's) underlined. Moreover, both parts have definite referents. In sentence (144)c, however, the first constituent qE is definite, but the second part, manUyhm lem, is indefinite and the first part seems to be included in the class of the second. As a special case of this sort, in sentence (144)d, which is "generic," the first half klan has no definite reference but signifies the class of "all pythons," while the second half introduces an indefinite class designation bAyhm kAn large snakes which includes pythons.

While the referential nature of the pairs of arguments in (144) varies, they may all be understood to involve the identification of one existential element or category with another. I formulate this relationship in terms of an abstract predicate of IDENT which takes two arguments in an OBJ function. In doing so, I am explicitly rejecting, in these instances, Fillmore's (1970:46) general assumption that "no simple sentence requires the occurrence of more than one NP in a given role." While his dictum seems to have a good deal of general validity, I feel that it is in precisely this type of sentence that one should expect the two roles to be the same. Lehiste (1968:117ff), faced with similar equational constituents in Estonian, employs the additional role essive along with objective. In answer to the question of what constitutes the difference between them, she declares that there is a hierarchical relation between them such that objective takes precedence in case they should cooccur. Apparently what she is saying, in effect, is that if two OBJ arguments occur together, the second one is labeled "essive." This, however, strikes me as nothing more than a way of preserving Fillmore's restriction against the simultaneous occurrence of the same role in a single sentence. Because of its ad hoc character, I consider essive less desirable than a straightforward recognition of two OBJ arguments in equative clauses.

One could interpret the two arguments in equative expressions as identified versus identification or some such designation. I will assume here, though, that these are precisely the distinctions that properly belong to the area of "theme" in the sense of Halliday (1967:199ff) where one is concerned with information structure rather than with role structure of the clause. Thus "topic" or information previously established in the discourse is distinguished from the "comment" or "focus," which constitutes the new information. It is to be noted that in (144)a,b either constituent may occur preposed as topic and the other postposed as comment, depending on discourse requirements. That sentences (144)c,d do not allow of such permutations is, I suggest, based on "thematic" constraints on the cooccurrence of informational elements such that a constituent with greater scope of inclusion (in a sort of set-theoretic sense) may not function as topic for a focus of a lesser scope.
5.1.6 **Location (LOC): orientational.** The function in which the spatial orientation of an event is specified is LOC.

The sentences of (145) exemplify some of the constituents in LOC function (underlined).

(145) a. \textcolor{red}{
\text{\textit{lAm plAy jadrAp biq i kraq dUn thoy nEh}}
\text{ in village Jadrap NEG have-exist elder old as before}
\text{In Jadrap village there are not any old elders like there were long ago.}
\textcolor{red}{}
\}

b. \textcolor{red}{
\text{\textit{kani mUt t\text{\textit{Ur pam}}}}
\text{ mouse enter in rice house}
\text{Mice got into the rice house.}
\textcolor{red}{}
\}

c. \textcolor{red}{
\text{\textit{b\text{\textit{Oq plon br\text{\textit{Ok Ing hyE tr\text{\textit{UH paq nook taw}}}}}}
\text{ gr\text{\textit{fa Plon go from house arrive at mount far-distal}}}
\text{Mr. Plon went from his house and arrived at that mountain.}
\textcolor{red}{}
\}

d. \textcolor{red}{
\text{\textit{tarIt qman mahaam pEng hmu}}
\text{ Tarit put blood atop rock}
\text{Tarit put blood on top of the rock.}
\textcolor{red}{}
\}

e. \textcolor{red}{
\text{\textit{ch\text{\textit{UUr kwI kaqnAm hyE}}}}
\text{ pig sleep under house}
\text{The pigs were sleeping under the house.}
\textcolor{red}{}
\}

f. \textcolor{red}{
\text{\textit{Ing rong gE tamAng sUq koon bri kadrI gE}}
\text{ from back 3-sg listen secretly child and wife 3-sg}
\text{From behind (them) he eavesdropped on his daughter and his wife.}
\textcolor{red}{}
\}

g. \textcolor{red}{
\text{\textit{gE qway ah ngEr bEn}}
\text{ 3-sg be-situated towards front 1-pl}
\text{He stood in front of us.}
\textcolor{red}{}
\}

h. \textcolor{red}{
\text{\textit{sit br\text{\textit{Ok gah mat hI k\text{\textit{lIh}}}}}}
\text{ Sit go towards eye day fall}
\text{Sit went towards the west (i.e., toward the setting sun).}
\textcolor{red}{}
\}

i. \textcolor{red}{
\text{\textit{koon plAy payh jUm dar plAy}}
\text{ children village rake around village}
\text{The villagers raked all around the village.}
\textcolor{red}{}
\}

j. \textcolor{red}{
\text{\textit{yI hloq kyak paq qnay t\text{\textit{roong}}}}
\text{ 3-pl see creature at middle road}
\text{They saw the ghost in the middle of the road.}
\textcolor{red}{}
\}
The surface realization of LOC expressions typically involves the designation of a focal physical reference point in relation to which some physical orientation may be specified. While some orientations are based on nouns like rong back and noEr front, others are apparently more purely relational "particles" like Ing from, paq at, gah, ah towards, etc.

It will be recalled from our earlier discussion of locational aspects of the speech act situation that words like ku proximal, meh medium-distal, taw far-distal and some others have a LOC function similar to the locational elements in (145), but they contain in addition an intrinsic reference to L₀ (i.e., the location of the highest ultimate speech participants).

5.1.7 Time (T): orientational. The function in which a temporal orientation is specified for an event is represented as T.

Examples of the T role are found in the sentences of (146).

(146) a. 1Uya blah loong dal hI dAng
   Luyq cut wood arrive day stand-up
   Luyq cut wood until noon.

b. Ing gmaang yang nEh taam haqmoon daq ay
   from long-ago not-yet narrate one that
   From the beginning I haven't yet told that one (story).

c. hI nhEn ding bIq khQq am tamoy tok
day 1-pl-excl taboo NEG POSSIB give stranger ascend
   On days we observe taboos we can't let strangers come up (into our houses).

d. trUH mat hI pEng bUng ngok gE hloq jIl
   arrive eye day atop peak mount 3-sg see deer
   At sunset he saw the deer.

e. saang meh nhEn padAy mOyg khay
   COMPL med-distal 1-pl-excl rest one moon
   After that we rest for a month.

As discussed earlier in connection with speech act predicates, some temporal expressions are anchored directly in the ultimate speech act, being either prior, subsequent, or simultaneous with the time of the speech act (T₀). Sentence (146)b reflects time prior to the speech act. All the other temporal references in (146) are independent of T₀, taking the sun, moon, or some other phenomenon as a reference point.
5.1.8 Comitative (COMIT): orientational. The function in which an animate referent is associated with or accompanies another participant in an event is COMIT.

While T and LOC provide temporal and spatial orientation, COMIT provides a social one. Consider the following examples in (147).

(147) a. aw waq nam ngOy Ing chop
    1-sg want come play COMIT 2-pl
    I want to come visit with you.

b. bya lUyq qway Ing bya raang hU
    princess Luyq abide COMIT princess Rang Hu
    Princess Luyq stayed with Princess Rang Hu.

c. chop bOy tok Ing aw paq jOng
    2-pl NEG-IMP ascend COMIT 1-sg at communal house
    Don't go up into the communal house with me!

d. dOm ay aw poq danUh Ing Ih
    indef-quantity that 1-sg converse COMIT 2-sg
    That's about all I had to talk with you about.

The usual surface signal of COMIT is the relational particle Ing. Like "of" or "by" in English, the form Ing marks more than one semantic relationship. Notice the following uses in (148):

(148) a. gE bahlat vI Ing qdaaw
    3-sg cause-die 3-pl INS sword
    He killed them with a sword.

b. manUyq Ing laaw waq qway Ing nu
    person LOC-from Laos wants live COMIT 2-sg
    The man from Laos wants to marry (live with) you.

In (148)a, Ing occurs with the INS role; in (148)b it occurs in the first instance underlined as a LOC marker meaning roughly "from," and in the second instance as a COMIT role marker. While these three functions are apparently distinct, one wonders whether there exists some degree of unity as reflected in the surface fact of the common form Ing. This seems an especially relevant question in the case of COMIT and INS. In other languages these two functions sometimes share a single surface manifestation. For example, English with can mean either instrumentality or accompaniment. Lehiste (1968:120) notes that with verbs other than 'be' in Estonian the two functions are realized by one surface case, which leads her to subsume both under one semantic role ASSOCIATIVE. Harold Schifman (personal communication) notes that in Dravidian also these same two relationships
often have the same surface case marker. While I do not explore the question in detail here, I think that evidence of this type will ultimately lead to further decomposition of Fillmore's role types into finer semantic components. That is, INS seems to involve features of causality, inanimateness, involuntariness, and something like direct association. COMIT, on the other hand, is noncausal, usually animate, perhaps involuntary, but also involves direct association. Perhaps the most plausible conclusion is that the lexicalization process has simply singled out the direct association feature of INS and COMIT as the common denominator, leaving the other features to be inferred from the nature of the accompanying nouns and verb.

5.2 Clause Types

Fillmore (1968a:54, 55) concluded:

The case concepts I have been discussing, together with the notion of clause types which various arrays of them define (emphasis mine, KG), provide the categorial and configurational information for determining the surface distinctions...

In just this sense, the arrays of role types discussed in 5.1 may now be enumerated as the basis of clause or simple sentence type. In doing so we will be concerned with the following kinds of information: a) the nature of the verb (i.e., event, state, etc.), b) the number of arguments, c) the role function of the arguments, d) the relationship between semantic configuration and surface realization.

Implicit in the foregoing discussion is the assumption that the abstract elements predicate and argument pair most directly at this level with verbs and nouns in their surface realization.

5.2.1 0-termed Clauses. The general schematic representation for this clause type is (150):

(150) \[ \text{PROP} \quad \overline{\text{PRED}} \quad [\text{event/state}] \quad [\text{meteorological}] \]

The above diagram is meant to signify that the basis for this type is a proposition with a predicate specified as an event or state of a meteorological nature with which no arguments are typically associated. Note that the appearance of a predicate feature means a + specification. Chafe (1970:101) referred to this as a sentence with an "ambient" verb.

We may exemplify these meteorological clauses in the sentences of (151):
(151) a. mE
   rain
   It is raining.

b. tuq
   hot
   It is hot.

c. tangyet
   cold
   It is cold.

5.2.2 One-termed Clauses. The first class of one-termed clauses may be given the general form of (152)

(152) a. PROP  PRED
   [event]
   ARG  PROP  PRED  PAT
   ARG  x

b. PROP  PRED
   [event]
   ARG
   PAT

Diagram (152)a is to be read as a proposition in which there is a one-place event predicate and in which the one argument contains a referent with the role function PAT. The main argument may be simply reduced to the short-hand version ARG as in (152)b.

For convenience this abbreviatory convention will be followed in other generalized diagrams of clause types below.

Examples of what I will call one-termed event clauses are shown in (153):

(153) a. daak ro
   water flow
   The water was flowing.

b. koon gE ranih
   child 3-ag be-born
   Her child has been born.

c. yaq kaqok
   grmo cough
   Grandmother coughed.
The Lao prince has died.

All of the verbs of (153) are events. The PAT arguments are likewise similar in that they are all involuntarily affected by the event whether they have animate or inanimate referents. Note in this connection certain semantic redundancies:

a) \textit{hlat} die presupposes an animate PAT argument
b) PAT itself seems to imply involuntariness
c) inanimateness also implies involuntariness.

A second class of clauses which may be distinguished are one-termed state clauses. One version of these may be summarized as:

\begin{equation}
(154) \quad \begin{array}{c}
\text{PROP} \\
\text{PRED} \quad \text{[state]} \\
\text{ARG} \\
\text{PAT}
\end{array}
\end{equation}

These clauses seem typically to involve a verb of physical or psychological state as in (155).

\begin{enumerate}
\item a. kler s0k
  \textit{kler} happy
  \textit{kler} is happy.
\item b. miq aw kaqUuq
  \textit{mother} 1-sg sad
  \textit{My mother is sad.}
\item c. hyit j1q
  \textit{hyit} sick
  \textit{Hyit is sick.}
\end{enumerate}

\begin{itemize}
\item The argument of subclause type (154) is presupposed to be animate and is an experiencer of the state conveyed in the predicate.
\end{itemize}

There is yet another variety of one-termed state clauses. I formulate it as:

\begin{equation}
(156) \quad \begin{array}{c}
\text{PROP} \\
\text{PRED} \quad \text{[state]} \\
\text{ARG} \\
\text{OBJ}
\end{array}
\end{equation}
Consider these examples:

(157) a. ramo bOq pataw ramaq
    cow grandfather rich-man fat
  The rich man's cows are fat.

b. loong chaqba ku habAl
    tree branch prox thick
  This branch is thick.

c. daak biq i
    water NEG have-exist
  There wasn't any water.

Whereas the states in (155) were experiential in character, those of (157) seem to be more ascriptive. Furthermore, the states in (157) apparently reflect characteristics of an inherent nature, while those of (155) seem more transitory. Recall that the OBJ role function was the one in which the simple existence of an argument was in focus. This correlates with its cooccurrence in (157) with state predicates involving intrinsic qualities and even existence itself in (157)c.

5.2.3 Two-termed Clauses. Perhaps the most common two-termed clause type is the traditional transitive/active one. Let us assume a representation like (158) for it.

(158)

```
PROP   PRED
    [event]
  ARG  PAT
  ARG  AG
```

Examples of this clause type are (159).

(159) a. aw tuh gE
    1-sg hit 3-sg
    I hit him.

b. chin di laayq joy
    Chin Di scolded deer
    Chin Di scolded the deer.

c. glich plih aaw
    Glich change shirt
    Glich is changing his shirt.

In each clause of (159) the AG argument is preposed ahead of the
verb according to normal topic placement conditions. The PAT argument follows the verb. Notice that the predicate is realized by an action verb.

The examples given in (159) are instances in which the AG role and the PAT role have distinct referents. Halliday (1968:185ff) has suggested that viewing clauses in terms of the "ergative" form of their organization leads one to replace the terms "actor" and "goal" with "causer" and "affected" respectively, and to distinguish clause types "according to the extent to which there is a tendency for the causer of the action to be identical with the affected." He offers, further, that it is possible to distinguish English John sat down from John fell down by construing John as "causer/affected" in the first instance and simply "affected" in the latter. The "causer/affected" characterization of "middle voice" type clauses seems to fit a class of Rengao clauses. I will say that the AG and PAT arguments are both present semantically but that, unlike the examples of (159), they are coreferential. Consider the clauses in (160).

(160) a. b0q kla jak
    grandfather tiger go-off
    Mr. Tiger ran off.

b. mU geh y0ng
    group elder arise
    The elders stood up.

c. mreng kahUyq
    Mreng whistle
    Mreng whistled.

In surface terms these are "intransitive;" there is only one NP constituent in each clause of (160), but as Halliday points out, there is an underlying sense in which the instigator of the action is also the one affected. Notice that a clause like (153)c yaq kaok grandmother coughed normally involves only a PAT argument and no instigator (unless the cough is self-induced) even though it is also an action verb. Thus the presence of an action verb does not necessarily imply an AG argument, nor does it rule out the possibility that only a PAT may be present. I conclude, therefore, that "actor" is, from a semantic point of view, an infelicitous term at worst and a superfluous one at best. It refers only to a surface NP that occurs with action verbs and as seen from the above discussion it may subsume PAT, AG, or PAT-AG (as in 160).

The lexical characterization for the verbs of (160) must reflect this disparity between the semantic structure (in which
two role functions AG and PAT are present) and surface grammar (in which only one NP is present). Thus something like \((161)a\) accounts for transitive clauses \((159)\), while \((161)b\) accounts for the intransitive ones of \((161)\) (here subscript numbers mark predicates with different verb class manifestations and subscript letters mark different referents):

\[
\begin{align*}
(161) \ a. \ & \text{PROP} \rightarrow \text{PRED}_1 \\
& \quad \text{ARG} \rightarrow \text{PAT} (x) \\
& \quad \text{ARG} \rightarrow \text{AG} (y) \\
\end{align*}
\]

\[
\begin{align*}
(161) \ b. \ & \text{PROP} \rightarrow \text{PRED}_2 \\
& \quad \text{ARG} \rightarrow \text{PAT} (x) \\
& \quad \text{ARG} \rightarrow \text{AG} (x) \\
\end{align*}
\]

An important two-termed expression which can conveniently be described here involves the CAUSATIVE predicate. The general form of the sentences which I have in mind (see \((163)\)) is given along with general rules for surface realization in \((162)\).

\[
\begin{align*}
(162) \ a. \ & \text{PROP} \rightarrow \text{PRED} \rightarrow \text{CAUSE} \\
& \quad \text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{verb} \\
& \quad \text{ARG} \rightarrow x^* \\
& \quad \text{ARG} \rightarrow \text{PROP} \rightarrow \text{PRED} \rightarrow \text{AG} \\
& \quad \text{ARG} \rightarrow z \\
\end{align*}
\]

\[
\begin{align*}
b. \ & \text{CAUSE} (\text{verb} (x)^*, \text{AG} (z)) \\
c. \ & \text{AG} (z) \ \text{CAUSE} (\text{verb} (x)^*) \\
d. \ & \emptyset z \ \text{CAUSE} \ \text{verb} \ x \\
e. \ & z \ \text{pa-verb} \ x
\end{align*}
\]

According to \((162)a\) the predicate CAUSE has two arguments. The lower argument in the diagram has a referent \(z\) (usually animate) which functions as the causal agent (AG); the upper argument is a clause having as its main predicate a verb with one or more (*) arguments \((x)\); i.e., in surface terms it may be intransitive
or transitive (though the latter is much less frequent).

The derivational conditions which determine the overt manifestation of such causative construction begin with (162)b as an equivalent linearized form of (162)a. Then the normal topic argument preposing requirements place the AG argument in first position as the "subject" of the sentence, as reflected in (162)c. The abstract predicate AG is deleted according to (162)d. Finally, the abstract predicate CAUSE is lexicalized as the verbal prefix pa- (with morphophonemic variants ba-, ma-) or the less common ta-.

To provide some flesh for the above formulations, I offer the examples in (163). The basic clause appears first as in (163)a and the causative variant appears second as in (163)a’1, etc.

(163) a. koon kwI
     child sleep
     The child is sleeping.

a.1 miq pakwI koon
     mother CAUSE-sleep child
     The mother puts the child to sleep.

b. ruyh hlat
     elephant die
     The elephant died.

b.1 ka bahlat ruyh
     fish CAUS-die elephant
     The fish killed the elephant.

c. qmaaw gyAng
     rice become
     The rice is growing.

c.1 koon pIay bagyAng qmaaw
     child village CAUSE-become rice
     The villagers raise rice.

d. koon ngay UUq daak tuh
     child infant nurse liquid breast
     The baby is nursing (on milk).

d.1 miq baqUUq kA koon ngay daak tuh
     mother CAUSE-nurse child infant liquid breast
     The mother is nursing the baby.
e. bOq truq chakhoq
   grfa put-on shoe

   Grandfather is putting on his shoes.

1 chaw patruq kA bOq chakhoq
   grandchild CAUSE-put-on grfa shoe

   The grandchild is putting his grandfather's shoes on him.

It is readily apparent that the first example in each pair in (163) may be classed in surface terms as either intransitive as in (163)a-c or transitive as in (163)d,e. Like all clauses, these simple noncausative expressions obey certain constraints on topic preposing. But notice that when these simple clauses are associated with the predicate CAUSE and the causal agent (as in the second example of each pair, it is the causal agent NP which automatically takes precedence and is preposed as the main subject of the total expression (see condition (162)c). The corollary of that preposing rule is that the same NP which is topicalized under simple clause conditions is **postposed** under causative conditions.

Interestingly, the much discussed kill/die lexical relationship in English has a clear parallel in Rengao as illustrated in (163)b where the relationship is explicitly built on a causative construction. Notice further some examples of other causative pairs in relation to their lexicalizations in English.

(164) yUq to fear taqnhUq to frighten
    bat to remember, miss tabat to remind
    ywa to use paywa to provide, lead
    hruUq to pay a fine pahrUq to fine
    hluh to perceive pahluh to enlighten
    lem to be good palem to improve, ameliorate

Another two-tiered clause type with effective and affective terms can be diagrammed as (165).

(165) PROPPRED
     [ event ]
     ARG PAT
     ARG INS
Clauses in (166) provide instances of this array.

(166) a. Un kaq hyE vi
    fire eat house 3-pl
    Fire consumed their house.

b. mU kasEng bIt chak gE
    group bone pierce body 3-sg
    The bones pierced his body.

In (166) we are concerned not with an animate, purposeful, ultimate instigator (i.e., an AG role) but with an inanimate, immediate, causal factor. The surface topicalization requirements, however, treat INS like AG in preposing it in the context of a PAT argument. The generalization appears to be that the feature effective, which INS and AG share, takes precedence over affective, a feature of PAT.

Clauses containing verbs of physical perception may be described as an array containing an event predicate associated with a PAT argument (the perceiver) and an OBJ argument (that which is perceived). I diagram the situation as (167):

(167) PROP
    PRED [event]
    ARG PAT (causal role type)
    ARG OBJ (existential role type)

Examples of this clause type are those of (168).

(168) a. gu qyoh hloq bAyh
    pl little see snake
    The children saw the snake.

b. drUh tAng nAr bAr kyak
    girl hear word mouth creature
    The girl heard the ghost's words.

Notice that the PAT argument is the preposed constituent in each instance and the OBJ argument is postposed. The rule here is that causal role types, whether effective or affective, outrank existential in the topicalization hierarchy.

Similar to the clauses of physical perception are those of psychological perception or state, represented as (169).
Consider as examples the sentences of (170).

(170) a. koon ngok yUuq yaang naang graay  
    children meet fear spirit Nang Gray  
    The mountain people fear the spirit called Nang Gray.

b. kit drok loq baq gE  
    frog know father 3-sg  
    The frog knew his father.

c. krwah bat miq gE  
    Krwah miss mother 3-sg  
    Krwah missed her mother.

The PAT argument occurs in preposed position and the OBJ argument in postposed position. Notice that it is the "subject" that is the participant affected and that the OBJ is not basically affected, but is simply an existential reference point.

A two-termed clause type already discussed to some degree in connection with the OBJ role (see 5.15) is the identificational or equative clause. These may be partially represented as (171).

As mentioned in 5.15, I am assuming here the legitimacy of two identical role types cooccurring in the same clause in violation of Fillmore's general assumption to the contrary. In Rengao I view the predicate as an abstract state predicate IDENT which receives no surface realization (though cf. parallel expressions in English which have an overt is and in Vietnamese là to signal the same relation).

In (172) clauses of an identificational nature are
exemplified.

(172) a. koon hadrUyq ga bya lUyq
    child last 3-ag princess Luyq

    His youngest child was Princess Luyq.

b. tadam jri dong koon boq pataw
    boy Jri Dong child grfa rich-man

    The boy Jri Dong was the son of the rich man.

c. aw ku sit oh kA taang
    1-ag prox Sit younger sibling 'of' Tang

    I am Sit, the younger brother of Tang.

d. maneng ay maneng kAn
    crossbow that crossbow large

    That crossbow is a large one.

e. gE manUyq badUK kAn
    3-ag person stomach large

    He was a potbellied person.

It will be seen that (172)a,b,c involve a more or less "strict" identity relation between the two OBJ arguments contained in them. Both arguments manifest definite referents. As a general rule this kind of clause may turn up with either constituent in either first or second position. Some are rather awkward, though, and (172)c would less likely appear in reverse order. This seems to have something to do with the fact that the proposed topic argument is minimally specified; i.e., it is a pronoun, while its postponed focus is rather fully specified with a good deal of semantic content. It is seldom the case in Rengao that a pronoun can appear as a focus when the topic is a semantically "full" expression. Matters of this nature are those of the "informational" structure of the clause. Examples (172)d,e are identification in a less definite fashion. The first OBJ argument is identified as a member of a broader class. While (172)a-c were instances of identification by equivalence, (172)d,e are identification by inclusion. For these latter clauses there is no possibility of reordering the constituents. Again, this appears to reflect an informational constraint that favors a topic with narrower scope than its associated focus.

Predicates of orientation like qway form two-termed clauses. For example consider the variations in (173):

(173) a. gE qway Ing nha laaw
    3-ag abide-remain COMIT noble Laos

    He stayed with the king of Laos.
b. gE qway paq plAy jadrAp
   3-ag stay at village JadrAp
   He stayed at JadrAp village.

c. gE qway mOyq hi
   3-ag stay one day
   He stayed for one day.

The first constituent, gE he, functions as in an OBJ role while the final constituent in each of the sentences is an orientational role, (173)a is COMIT, (173)b is LOC, and (173)c is T.

In regard to orientational predicates, it is worth noting that a clause may be formed centering on what is more commonly a role predicate marker. In (173)b, for example, the role marker paq at may be thought of as embedded below the main predicate qway, but in (174) notice that paq and ing from are the chief clause predicates.

(174) a. tadam paq kiing jEk
       boy at edge field
       The boy is at the edge of the field.

b. vI ing taqnih daak phalaang
   3-pl from earth water France
   They are from (the country of) France.

5.2.4 Three-termed Clauses. The paradigm case of three-termed clauses is that which involves the BEN role. This role is regularly signaled by am which gets variously translated as for or give. Consider the following examples:

(175) a. manUyh badro tek am mU plAy tamaam
       person trade sell BEN group village goods
       The peddler sells stuff to the villagers.

b. yaq gE pih am gE gmaaw
   3-ag pound BEN 3-ag rice
   His wife pounded some rice for him.

c. vI yok am ma pagaang
   3-pl get BEN 3-ag incl medicine
   They got us some medicine.

d. vI am ma pagaang
   3-pl BEN 3-ag incl medicine
   They gave us some medicine.

In the case of (175)a the verb tek sell seems intrinsically to involve the semantic presence (though not always a surface occurrence) of the BEN role. Sentences (175)b,c have verbs pih pound
and yok take which, unlike tek, do not presuppose BEN, but which may optionally cooccur with BEN. Example (175)d is interesting because if am is selected as the main predicate of the clause, it obligatorily presupposes the presence of benefactor in an AG role, a beneficiary in a BEN role, and some benefit in an OBJ role. As a general form, I suggest that something like (176) represents most three-tiered expressions of the benefactive type.

(176)

Consider as an underlying diagram of (175)c the array in (177).

(177)

That is, the verb yok take has three arguments associated with it. Each argument is in turn a proposition in which the role function is a predicate and the lexical term representing the referent is its argument. The conditions which are in effect to produce the surface form (175)c have been discussed in section 5.1.4 figure (137). Briefly, the derivational processes connected with (177) involve preposing the argument in AG function and deleting all the abstract role predicates except BEN which is realized as am.

Next compare the structure underlying (175)d as set forth in (178):
Notice that (178) and (177) are very similar. The difference is that the main predicate at the top of (177) is yok get, and BEN am plays a subordinate part as only a role function predicate. In (178), however, yok get is not present but BEN is predicated as the main verb of the clause. Again the surface form (175)d is realized by preposing the argument in AG function and deleting the abstract predicates, BEN being spelled out as am only once to serve both as main verb and beneficiary marker.

In (176) and following diagrams, the labeling of one argument as OBJ is consistent with its interpretation as an element whose orientation or existence with reference to a beneficiary is in basic focus. There is in some cases a sense in which the element may be said to have "undergone" some process, in which case perhaps both OBJ and PAT (cf. (186)) may both be present.

A further instance of a three-termed type clause involves predicates which presuppose an orientation for a "transitive" action. Sentences like (179) with verbs meaning 'to put' or 'to place' constitute examples of the clause type in question.

(179) a. bOg tah ga tUr ro
gafa put 3-sg in basket
Grandfather put it in the basket.

b. tarIt qmaan mahaam ga pEng hmu
Tarit put blood 3-sg atop rock
Tarit put its blood on the rock.

The general form underlying (179) is (180).
And (179)a would be diagrammed as (181).

Examples in (182) constitute further instances of a three-termed clause type. Like those of (179), they involve an orientational component, but unlike (179) only two of the three terms receive a surface manifestation. Thus these examples are the three-termed counterpart of the two-termed ones discussed in (160).

(182) a. aw jUUr Ing bUng hyE
    1-sg descend from peak house
    I come down from the peak of the house.

b. tadam tok paq j0ng
   boy ascend to communal house
   The boy went up into the communal house.

c. chOn chIq paq hyE
    Chon return to house
    Chon went home.

These clauses may be represented in a general way as (183),
in which the PAT and AG roles have arguments which are coreferrential (both refer to y).

Perhaps a clause type which should be considered semantically three-termed is that in which an object is somehow produced or brought into being through the action of the predicate. Fillmore (1968a:4) has noted that this situation has been traditionally described in terms of an affectum-effectum or (in German) an affiziertes Objekt - effiziertes Objekt distinction. That is, he is distinguishing (184)a from b.

(184)  a. John ruined the table.
       b. John built the table.

The phrase the table in (184)a is an affectum, but the same phrase in (184)b is an effectum.

In Rengao, the following examples in (185) also seem to reflect the presence of a constituent that is a product of the process described by the verb.

(185)  a. aw bEq hyE
       I-am build house
       I am building a house.

b. khUr haqmoon tadoong sit bri taang
   Khur narrate matter Sit and Tang
   Khur told the story of Sit and Tang.

c. byinh khaan gE hlat
   Byinh say 3-ag die
   Byinh said, 'He's dead.'

The second argument (last constituent) in each sentence of (185) in some sense may be said to have its existence by virtue of the predicate. Furthermore, it can be said to have undergone the process by which it was produced. In short, it seems that both an OBJ function and a PAT function are associated with the final constituent. I diagram the situation as (186),
where OBJ and PAT arguments are coreferential.

Notice that, according to this treatment of (185)b,c, narrations and quotations would function as PAT-OBJ fusion associated with predicates of speaking. In these cases the speech itself bears all the traces of the particular speaker even when the speech (e.g., a story) may be thought of as existing independently of any given narration. In most instances a speech is a novel creation tailored to a situation.

In connection with two-termed clauses earlier, I described the verbs hloq see and tAng hear as taking OBJ and PAT arguments. Now note that intuitively related verbs nhen look and tamAng listen may be considered three-termed predicates semantically though again only manifesting two surface NPs.

(187) a.  qUqyoh  nhen  bAyh
   pl  little  look-at  snake
   The children were looking at the snake.

b.  dRhU  tamAng  nAr  bR  kyak
   girl  listen-to  word  mouth  creature
   The girl was listening to the ghost's words.

Suppose we consider (188) the general form for this clause type.

(188)
In these instances in (187) the perceiver and the instigator are one and the same referent (y); hence there is a fusion of PAT-AG arguments into one surface constituent, which is preposed as the topic.

5.2.5 N-termed Clauses. So far I have described some clause types in respect to the number and variety of underlying arguments which are obligatorily associated with various predicates. Clause typing requires limiting oneself to obligatory or specifically presupposed roles. Obviously, however, there are arguments which can be added optionally to most of the clause types already discussed. It becomes less fruitful to talk about the number of arguments in these expanded clauses. Thus, for example, (189)a is a minimal two-termed clause but (189)b is an optionally expanded version of the same basic clause.

(189) a. aw peng jil
   I-sg shoot deer
   I shot a deer.

   b. hi mOq aw peng am Ih jil Ing maneng paq
      day one I-sg shoot BEN 2-sg deer INS crossbow at
      qUng
      Jungle
      Monday I shot a deer for you with my crossbow in the jungle.

While (189)a has two role functions AG and PAT, (189)b has six role functions T, AG, BEN, PAT, INS, and LOC.

It seems clear that orientational functions like T, LOC, COMIT are most often optionally specifiable with many predicates. It is of course true that they are presupposed for some other verbs. It seems true, further, that the ergative functions AG, INS and PAT, BEN turn up more often as obligatory roles which are diagnostic features of particular clause types. Effective ergative AG and affective ergative PAT are more obligatory than effective ergative INS and affective ergative BEN respectively. In any case, while no blanket generalization can be made, there does seem to be a tendency for some role predicates to be more basic (nuclear) and others to be less so (peripheral) as others have pointed out (e.g., Longacre 1964:48).
6 Sentential Predicates

Although the designation "sentential predicate" is in some ways problematical, there is nevertheless a traditional and intuitive sense in which the elements collected under that label do somehow form a set. As noted by Longacre (1970:783) there are conceptual correlations of linguistic "clause" functions with predicate logic on the one hand, and linguistic "sentence" functions with sentential logic on the other hand. It is, of course, only necessary to examine any general handbook on logic to discover the semantic relations in natural language that express the notion "and", "or", "if...then," and others are parallel to logical notions of conjunction, disjunction, and implication. These relational elements have been called "proposition-forming operators" and take clause propositions as their arguments. In surface terms they are often realized as "connectives" of some sort.

6.1 Conjunction

As a general representation of this predicate I will assume something like (190), in which * indicates an indefinite replication of the element.

(190) PROP PRED CONJ
     ARG PROP PRED verb
     ARG* PROP PRED verb

Ross (1967a) referred to a class of conjoined sentences which have undergone a reduction in structure. He formulated the rule of conjunction reduction to handle such expressions. In Rengao this class of sentences is illustrated in (191):

(191) a. gE kh0g poyg rangaaw pang poyg bahnaar
     3-sg POSSIB speak Rengao CONJ speak Bahrar
     He can speak Rengao and Bahrar.

b. mig gE pang koon gE bu
     mother 3-sg CONJ child 3-sg intoxicated
     His mother and his child were drunk.

c. aw manE pang Ih pang gE
     1-sg greet CONJ 2-sg CONJ 3-sg
     I greet you and him.

Sentence (191)a contains the form pang which may be translated and, with and which separates two expressions that are partially
identical in underlying structure. The material common to the
two conjoined sentences is gE kh6q povyq he can speak. While
all of this could be deleted in the second occurrence, repetition
is permissible; perhaps the degree of emphasis desired being the
controlling factor. In this example only povyq is preserved. In
example (191)b it is the first constituent sentence that is re-
duced in structure; the verb bu1 drunk is deleted in the first
clause. Finally, notice that in (191)c all identical material,
i.e., the second aw manE I greet, has been deleted and in addi-
tion pang appears not only ahead of the remainder of the second
reduced clause, but also just ahead of the other nonidentical
element of the first unreduced clause. In short, pang (option-
ally) brackets the contrastive constituents in the conjoined
structures.

Ross (1967b) also discussed what he has called "gapping"
in connection with coordinate structures. Briefly, it is the re-
duction of identical occurrences of the verb in conjoined sen-
tences. This kind of identity reduction is not common in Rengao,
though an expression like (192) is, to my knowledge, grammatical.

(192) sit peng j11 pang taang jam
    Sit shoot deer CONJ Tang wild-boar

    Sit shot a deer, and Tang a wild boar.

As Koutsoudas (1970:2) pointed out, there is good reason
to consider gapping and conjunction reduction to be the same
phenomenon. He proposed as a more general (optional) rule, co-
ordinate deletion, stated as,

Given a coordination in which each conjunct includes
a constituent which is identical to the corresponding
constituent of each other conjunct all but one of the
identical constituents may be deleted, the undeleted
constituent being that of the first conjunct if it is
a left-branching constituent, and that of the last con-
junct if it is a right-branching constituent.

The rule of coordinate deletion adequately predicts the correct
identity reductions in both (191) and (192).

The reciprocal construction is a subtype of coordinate con-
junction. It is the conjunction of two propositions such that
two referents switch their role functions between the first and
second proposition. I diagram the situation roughly as (193):

---
which is to be interpreted as the conjunction of two propositions which are manifested by surface clauses each containing the same main predicate (verb L). Each clause predicate has at least two arguments in which the referents X and Y have role functions M and N. The fundamental observation is that X has M function and Y has N function in the first proposition but X has N function and Y has M function in the second.

When the conditions of (193) exist, a radical reduction in structure is effected in Rengao sentences. Consider the examples in (194).

(194) a. aw qway Ing gE pang gE qway Ing aw
    1-sg abide COMIT 3-sg CONJ 3-sg abide COMIT 1-sg
    I live with him and he lives with me.

1. nhEn taqway
    1-pl-excl recip-abide
    We (he and I) live together.

b. nU jraq gE pang gE jraq nU
    2-sg pierce 3-sg CONJ 3-sg pierce 2-sg
    You stabbed him and he stabbed you.

b′. bri tajraq
    2-dl recip-pierce
    You (two) stabbed each other.

c. aw waaw Ih pang Ih waaw aw
    1-sg understand 2-sg CONJ 2-sg understand 1-sg
I understand you and you understand me.

c1. ba tawaaw
   1-dl-inol recip-understand
   We (two) understand each other.

d. Dim hUl qngIp pang qngIp hUl Dim
   Dim angry-with Ngip CONJ Ngip angry-with Dim
   Dim is mad at Ngip and Ngip is mad at Dim.

d1. Dim pang qngIp tahUl
   Dim CONJ Ngip recip-angry-with
   Dim and Ngip are mad at each other.

In order to describe the process by which reciprocal conjunctions are realized, I summarize the following general rules:

(195) a. Material that is identical in function and reference in the second proposition is deleted. Basically this reduces the two identical verb bases to one.

b. The verb base is prefixed with ta- (or pa- depending on the verb class).

c. Role structure is deleted on any coreferential arguments.

d. The second occurrence of arguments with identical reference is deleted.

e. The two remaining arguments are preposed bracketing CONJ.

f. The preposed arguments are realized according to the normal lexical elements associated with them. If they are pronominalized, however, a set of lexical "addition" constraints (see Smith 1969:115ff) guarantees that, for example, "you-sg" plus "he-sg" yields "you-dual", etc. CONJ is then deleted for pronouns.

g. CONJ, if still present, is realized as pang and (of more than one conjunct). There is another form, bri and, which is used of specifically two conjoined nouns and which is lexically related to, but not to be confused with, bri 2-dl or 3-dl as in (194)b1 but which functions as a conjunction.

Let us select, for example (194)b as a sample product of the above rules of derivation. Suppose (196) is a linearized representation of what underlies (194)b:
CONJ (jraq (AG (nu), PAT (gE)), jraq (AG (gE), PAT (nu)))
and stab you he stab he you

Then following the conditions in (195), the various effects are paralleled in derivational stages in (197); i.e., (197)a is based on (195)a, etc.

(197) a. CONJ (jraq (AG (nu), PAT (gE)), Ø (AG (gE), PAT (nu)))
   b. CONJ (ta-jraq (AG (nu), PAT (gE)), (AG (gE), PAT (nu)))
   c. CONJ (ta-jraq (Ø (nu), Ø (gE)), (Ø (gE), Ø (nu)))
   d. CONJ (ta-jraq (nu), (gE)), (Ø), (Ø)
   e. nu CONJ gE (ta-jraq)
   f. bri Ø tajraq

It is, of course, also true that the conjunction of reciprocal sentences need not be reduced at all, i.e., the above conditions of surface manifestation are optional. The first example in each pair in (194) may also be made an overt grammatical expression of the same relationship. They reflect in a very explicit way the underlying semantic array, but rather than reducing structure, one of the propositions is simply preposed (topicalized) ahead of the predicate CONJ.

Obviously, there are many other aspects of conjunctions in Rengao, though I will not enter upon an exposition of them in this outline. For example, the fact that the conjunction panq is used in the sense of with in certain sentences brings up the general problem of symmetric predicates discussed earlier by Lakoff and Peters (1966) and then by Dougherty (1970).

6.2 Disjunction

The coordinate association of alternative propositions may be diagrammed in general as (198).

(198) PROP ——— PRED ——— DISJUNC
    | ARG ——— PROP ——— PRED ——— verb
    | ARG*          
    | ARG* ——— PROP ——— PRED ——— verb
    | ARG*

I have already discussed this structure to some degree in connection with INTERROG in section 2.3.3, where it is viewed as an inherent component of the questioning process. It was pointed out, however, in that connection that it is an independent
structure which is basically indefinite and may be embedded in either interrogative or declarative speech acts. The examples of (199) below constitute some typical occurrences of DISJUNC:

(199) a. nu kadrang ha nu kadrI
   2-sg male DISJUNC 2-sg female
   Are you a man or are you a woman?

b. nu haqIng ge brOk ha biq
   2-sg ask 3-sg go DISJUNC NEG
   You ask whether he is going or not!

c. ge brOk ha biq brOk duh khOq
   3-sg go DISJUNC NEG go also POSSIB
   Whether he goes or doesn't go is optional.

In (199)a DISJUNC is part of a question, in (199)b it occurs in a question embedded in a command, in (199)c it is embedded in a declarative statement. Notice further that as an expression of alternatives one may specify negative vs. positive alternatives as in (199)a.

Reduction of identical material in the two coordinated clauses operates in many ways like that of CONJUNC discussed above. It is precisely this process of reducing the right-most identical constituents that "leaves behind" in the embedded disjunction of (199)b only the negative form biq to mark the alternative. Thus the presence of the disjunctive constituent haM or ha(dah) followed by a negative element biq not, taam not yet are "traces" of the fuller disjunctive coordination and may be considered more than "just question markers" or the like.

6.3 Condition

Conditional sentences of the form "if...then" may be generalized as (200).

(200) PROP — PRED — CONDITION
     ARG — PROP — PRED — verb
     ante(cedent) ARG*
     ARG — PROP — PRED — verb
     conseq(uent) ARG*

Consider the following examples of conditional expressions.

(201) a. jAh ge hloq aw, aw krO jaat
   if 3-sg see 1-sg 1-sg cry intensive
If she sees me, I’ll really cry.

b. iAm chanAy gE, kagna gE yok tamaam
   if win 3-sg then 3-sg take stuff
   If he wins, then he'll get the stuff.

c. hagAm gE huI, gE tuh aw
   if 3-sg angry 3-sg hit 1-sg
   If he gets mad, he'll hit me.

d. aw jrAm gE, aw kamEh
   1-sg meet 3-sg 1-sg embarrassed
   If I meet him, I'll be embarrassed.

The surface manifestations of the CONDITION predicate are the optional (cf. (201d)) placement of iAm or hagAm if before the antecedent clause and kagna then, therefore before the consequent clause. The order is typically antecedent + consequent. These sentences carry no presupposition as to the factualness of what they express.

6.4 Adversative (ADVERS)

Two propositions whose contents are being contrasted may be thought of as arguments of the predicate ADVERS. The diagram (202) summarizes this array:

(202) PROP — PRED — ADVERS
     |         | — verb
     |         | ARG — PRED
     |         | ante
     |         | ARG* — PROP
     |         | — verb
     |         | ARG — PRED — verb
     |         | ARG* — PROP

There are two classes of sentences that may be described in terms of an ADVERS relation. Notice first the examples in (203):

(203) a. manUyh saang hlat, chong dang mang khOq jaan
       person COMPL die ADVERS by night POSSIB work
       The person was dead, but at night he could work.

b. aw hloq miq, chong gE biq am aw rawq Ih
   1-sg see mother ADVERS 3-sg NEG let 1-sg tell 2-sg
   I saw mother, but she wouldn't let me tell you.

c. gE manUyh kadrI, chong gE broq thoy kadrang
   3-sg person female ADVERS 3-sg do like male
She was a woman, but she pretended to be a man.

In these examples **chong** ADVERSE "but" expresses the fact that information in the second clause is **contrary to expectation** in view of what is conveyed in the first clause.

Another subtype of this kind of propositional connective is illustrated in (204):

(204) a. hmag biq khIn, dUh jah tum ba
   ADVERS NEG brave also have-exist both 1-dl
   Even though we are not brave, we are two together.

   b. hmag ga yoyq hmag ga lo, 10yq aw
   ADVERS 3-sg wrong ADVERS 3-sg correct let 1-sg
   In spite of whether he is right or whether he is wrong, leave it to me.

In these instances **hmag** represents a **concessive adversative** relation between sentence parts. The basic notion is that regardless of the facts conveyed in the preceding clause, the facts of the succeeding one nonetheless obtain. Where the first proposition is complex as in the disjunctive expression in (204)b, **hmag** precedes each disjunct proposition (and incidentally in this context there is no other overt marker for DISJUNC, i.e., **hAm**, **hadah**).

Thus semantically one must distinguish ADVERS\textsubscript{1} (general adversative) as in (203) from ADVERS\textsubscript{2} (concessive adversative) as in (204). Syntactically, note that ADVERS\textsubscript{1} **chong** requires the preposing of one argument, while ADVERS\textsubscript{2} **hmag** has no such requirement.

6.5 Circumstance (CIRCUM)

Complex expressions also exist in which one proposition expressing what is presupposed to be a fact is contingent, sometimes causally, upon another proposition which is also presupposed to be a fact. These may be summarized as (205):

(205) \[
\begin{array}{c}
\text{PROP} \\
\text{ARG} & \text{PROP} & \text{CIRCUM} \\
\text{ante} & \text{PROP} & \text{verb} \\
\text{ARG*} & \text{PROP} & \text{verb} \\
\text{conseq} & \text{ARG*} \\
\end{array}
\]
The sentences of (206) illustrate this relation.

(206) a. hmAw ruyh nam paq ku, aw peng ga  
   CIRCUM elephant some LOC prox 1-sg shoot 3-sg  
   Since the elephant came here, I shot it.

b. hmAw tadam mangoot, gE chong  
   CIRCUM boy hungry 3-sg eat-rice  
   Since the boy was hungry, he ate some rice.

c. hmAw thoy ay, pih am aw phi beq  
   CIRCUM like so pound BEN 1-sg rice IMP  
   Since that's the case, pound me some rice.

In terms of presuppositional structure, notice the contrast between CIRCUM and CONDITION expressions, in which the former imply nothing as to the factualness of the statements while the latter have a clear-cut presupposition of factualness.

As with some other predicates in this section, hmAw does not permit the preposing of one of its arguments, but occurs sentence initially itself.

6.6 Cause

Two clause propositions which stand in a cause and effect relationship may be diagrammed as (207).

(207) PROP — PRED — CAUSE  
      ARG — PROP — PRED — verb  
                            ARG*  
      ARG — PROP — PRED — verb  
                            ARG*

Consider the examples in (208).

(208) a. koon ngok pot haneng, ywa kA geh taqnhak  
   child mountain cut tooth CAUSE elder insist  
   The montagnards cut their teeth because the elders insisted.

b. kar ay ba badrong, ywa kA yaang hUm ba  
   now 1-dl-incl rich CAUSE spirit help 1-dl-incl  
   Now we are rich because the spirit helped us.

c. ywa kA aw hapU, kaqna aw gyAng bajAw  
   CAUSE 1-sg dream then 1-sg become shaman  
   Because I had a dream, I became a shaman.
When CAUSE takes as its two arguments two full clauses as in (208), the content which they express is presupposed to be factual as was true of CIRCUM above. The predicate CAUSE has turned up in several places in this study of Rengao grammar and its arguments have been called "source" and "result" on other occasions, but in the last analysis the tags on the two terms are no more than temporary conveniences, and the relation remains the same. In (207) I have used antecedent and consequent with CAUSE since there is a parallel with the other two-place predicates dealt with in this section.

Surface realization of this kind of causal expression permits the preposing of the consequent argument as in (208)a,b; in which instance it is not marked by a preceding kagna then, therefore as it is when postposed in (208)c. The antecedent argument always directly follows ywa kA, which may be viewed as a rather direct reflection of the predicate CAUSE.
Appendix A: Notes on Phonology

The transcription employed in this paper requires some comments. The following brief summary of the phonology and representation will serve that purpose. Further discussion of similar structures may be found in Gradin 1966 and Cooper 1966.

1 Segments and Some Segment Structure Conditions

In the table below are summarized the basic set of Rengao segmental phonemes. Again reflecting the phonological outlook of the early seventies when this study was originally done, the features employed are generally those familiar from Chomsky and Halle 1968, but there are some modifications. First [high] and [low] are not considered pertinent to anything but vowels. Also [labial] and [laryngeal] are used, the former serving as [round] for vocoid segments as well as its expected value for consonants and the latter distinguishes glottals in a straightforward fashion. The feature [blade back] is essentially the same as [back], but [root back], which applies just to vowels is to be interpreted as tongue-root retraction or pharyngeal constriction as discussed by Stewart 1967 and Pike 1967 in connection with West African languages, and Gregerson 1976a. Briefly, [+ root back] is identified with what has been called "first" or "tense" register in Mon-Khmer writings, and involves a pharyngeal constriction caused by drawing the tongue mass back. This process has the concomitant effects of producing a "clear", "bright" timbre and lowering the perceived vowel height. On the other hand, [- root back] has been called "second" or "lax register" and involves a distending of the pharyngeal cavity by advancing the root of the tongue. This produces a "deep", "muffled", "resonant" timbre and raises vowel height.

Along lines suggested by Richard Stanley 1967, I summarize some segmental feature redundancies, though the Chomsky and Halle 1968 marking conventions would do many of the same things.

1.1 Vowels

1.1.1 Vowels are noncoronal, nonnasal, nonglottalized voiced continuants.
### FEATURE COMPOSITION OF RENGAO SEGMENTS

|         | p | t | c | h | k | b | d | j | g | m | n | n | h | n | g | s | r | l | w | y | h | q | i | e | a | o | u | i | e | a | o | u |
| consonantal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| syllabic     | - | - | - | - | - | - | - | - | - | + | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| high         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| low          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| root back    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| blade back   | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| coronal      | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| labial       | + | - | - | + | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| voice        | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| continuant   | - | - | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| nasal        | - | - | - | - | - | - | - | - | - | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| laryngeal    | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
if: \[
[- \text{ cons}] \\
[+ \text{ syll}] \\
\downarrow
\]
then: \[
[+ \text{ voic}] \\
[+ \text{ cont}] \\
[- \text{ coron}] \\
[- \text{ nas}] \\
[- \text{ laryn}]
\]

1.1.2 Back vowels are rounded; nonback vowels are unrounded.

if: \[
[- \text{ cons}] \\
[+ \text{ syll}] \\
[\alpha \text{ blade back}]
\downarrow
\]
then: \[\alpha \text{ labial}\]

1.1.3 Vowels cannot be simultaneously high and low.

if: \[
[- \text{ cons}] \quad \text{and} \quad [- \text{ cons}] \\
[+ \text{ syll}] \\
[+ \text{ high}] \\
\downarrow
\]
then: \[[- \text{ low}] \quad [- \text{ high}]\]

1.2 Glides

1.2.1 Glides are nonnasal and noncoronal:

if: \[
[- \text{ cons}] \\
[- \text{ syll}] \\
\downarrow
\]
then: \[[- \text{ nas}] \quad [- \text{ cor}]\]
1.2.2 Glottal glides are voiceless and nonglottal glides are voiced:

\[
\text{if: } \quad \begin{array}{c}
\text{[- cons]} \\
\text{[- syll]} \\
\text{[± glot]} \\
\end{array} \quad \Downarrow \\
\text{then: } \quad \begin{array}{c}
\text{[- α voice]} \\
\end{array}
\]

1.3 Consonants

1.3.1 Coronal consonants are nonback:

\[
\begin{array}{c}
\text{[+ cons]} \\
\text{[+ cor]} \\
\end{array} \quad \Downarrow \\
\begin{array}{c}
\text{[- blade back]} \\
\end{array}
\]

1.3.2 Voiceless spirants are frontal or palatal but never labial or velar:

\[
\begin{array}{c}
\text{[+ cons]} \\
\text{[+ cont]} \\
\end{array} \quad \Downarrow \\
\begin{array}{c}
\text{[- labial]} \\
\text{[- blade back]} \\
\end{array}
\]

1.3.3 In terms of elementary composition, consonants are nonglottals (but there are glottalized consonants, which are treated as sequences):

\[
\begin{array}{c}
\text{[+ cons]} \\
\Downarrow \\
\text{[- glot]} \\
\end{array}
\]

2 Some Sequence Structure Conditions

2.1 Word Structure

The word is a distinct phonological entity in Rengao and may be summarized as:

\[\text{PW} = #(S)S#\]
That is, a weakly stressed preliminary syllable (˘) may optionally occur preceding the more strongly stressed main syllable (S). Word boundaries # are defined as the interval directly following the first of two successive (not necessarily contiguous) ˘s.

2.2 Syllable Structure

2.2.1 Preliminary Syllables (˘). First of all, the preliminary syllable must obey these very general conditions:

\[ \hat{S} = \begin{cases} \text{+ cons} & \text{+ syll} \\ \text{- cons} & \text{- high} \end{cases} \]

That is, the preliminary syllable is typically only two segments long. The first segment can never be a vowel and the second must be a nonhigh vowel. To these general conditions we must add a number of specific contextually defined restrictions as follows:

(i) The preliminary initial segment

The first segment in S shows varying degrees of dependency upon the nature of the first segment(s) of the main syllable (S). If F represents all features of a segment, \( \alpha \) represents variable values, and \( * \) means indefinite number, then the following generalization holds:

\[
\text{if: } \quad \# \begin{cases} \text{+ cons} \\ \text{- high} \end{cases} \quad \text{[} \alpha F]_X \# \\
\text{then: } \quad \begin{cases} \text{+ cons} \\ \text{- high} \end{cases} \quad \text{[} \alpha F]_*
\]

That is, the initial segment of the preliminary syllable may assimilate completely to the main syllable initial segment as in these of the first class:

- \text{gaglak} \quad \text{a child laughing (expressive adverb)}
- \text{lalayq} \quad \text{similar}

These words are often onomatopoeic and introduce the greatest variety into presyllable initial composition. Actually, even consonant clusters of the main syllable may turn up in the presyllable position as a part of this absolute assimilation. A second class of presyllable initial segment are the [+ continuant] phonemes /h/ and /r/. These are almost entirely unrestricted in their freedom to occur preceding any main syllable types. A
third class of presyllable initial segment involves [+ cons] [- cont] phonemes (stops and nasals). The condition to be expressed is:

\[
\text{if: } \begin{array}{c}
+ \text{ cons} \\
- \text{ cont} \\
+ \text{ lab} \\
\hline
\end{array}
\quad \begin{array}{c}
- \text{ cons} \\
+ \text{ syll} \\
- \text{ high} \\
\hline
\end{array}
\quad \begin{array}{c}
+ \text{ cons} \\
\alpha \text{ voic} \\
\alpha \text{ nas} \\
\hline
\end{array}
\quad X 
\begin{array}{c}
\hline
# \\
\end{array}
\text{then: } \begin{array}{c}
\alpha \text{ voic} \\
\alpha \text{ nas} \\
\hline
\end{array}
\]

This says that presyllable labial stop consonants assimilate to the voicing and nasality of main syllable initial stop consonants. For example:

badUk  stomach
maneng  crossbow
pakal  to force

Second, notice the further condition:

\[
\text{if: } \begin{array}{c}
+ \text{ cons} \\
- \text{ cont} \\
+ \text{ lab} \\
\hline
\end{array}
\quad \begin{array}{c}
- \text{ cons} \\
+ \text{ syll} \\
- \text{ high} \\
\hline
\end{array}
\quad \begin{array}{c}
+ \text{ cont} \\
\hline
\end{array}
\quad X 
\begin{array}{c}
# \\
\end{array}
\text{then: } \begin{array}{c}
+ \text{ voic} \\
- \text{ nas} \\
\hline
\end{array}
\]

This means that the voiced labial stop /b/ occurs in the presyllable if the main syllable initial is a continuant consonant. For example:

basEh  wizard
baraang  cholera
basat  knife

There is yet another condition on [- labial] presyllable (initial) consonants:
if: \[ + \text{cons} \] \[ - \text{cons} \] \[ + \text{syl} \] \[ - \text{syl} \] \[ + \text{lab} \] \[ - \text{lab} \] \[ + \text{high} \] \[ - \text{high} \] \[ X \]

then: \[ - \text{voic} \]

That is, nonlabial presyllable consonants are voiceless. This is, of course, subject to the exceptional cases of absolute assimilation in the case of onomatopoeic words mentioned earlier. Examples are:

chakhoq  shoe
tadroong  matter, thing
kadrI  wife

(ii) The preliminary syllabic segment

The vowel of the presyllable is noncontrastive but may vary phonetically depending on the vowel of the main syllable, producing a phonetic vowel harmonic effect. The following diagram shows the conditioning factors:

presyllable vowel

\[ \begin{array}{c}
[- \text{cons} \\
[ + \text{syl} \\
[ - \text{high} \\
[ + \text{low} \\
[ - \text{root back} \\
[ - \text{blade back}
\end{array} \] \]

main syllable vowel

\[ \begin{array}{c}
[ + \text{syl} \\
[ - \text{root back}
\end{array} \] \;

\[ I, E, A, O, U \]

Which means that if the main syllable vowel is \[ - \text{root back} \] or "lax register" then the presyllable vowel is A, that is \[ [\alpha] \]. But note, further for "tense register" syllables:

presyllable vowel

\[ A [\wedge] \]

main syllable vowel

\[ i, u \]

\[ \begin{array}{c}
[- \text{cons} \\
[ + \text{syl} \\
[ + \text{high} \\
[ + \text{root back}
\end{array} \] \]
In this "tense register," the main syllable high vowels /i,u/ still take /A/ [a] in the presyllable, but the [-high] main syllable vowels /e,o/ may take their exact counterpart in the presyllable or very often just /a/ for all [-high] vowels. Note, though, that in the presyllable transcription throughout this study I have used a exclusively for all presyllables, since its shape is predictable.

2.2.2 Main Syllables (S). The main syllable reflects greater freedom of cooccurrence than does the presyllable, but the following general patterns may be noted:

S = Q C L V (V) W Z

[+ glot] [+ cons] [+ cons] [- cons] [- cons] [+ glot]
[+ voic] [+ syll] [- syll] [+ cons]
[+ cont] [+ voic]

I summarize informally some of the constraints in this structure as follows:

(i) Q [+ glottal] may be either [+ cont] or [- cont] before voiced continuants, i.e., /hm/, /hl/,qm/, /q1/, etc. Q must be [+ cont] following voiceless noncontinuants, /ph/, etc. Q must be [+ cont] before nonnasal voiced noncontinuants, i.e., /qb/, etc.

(ii) All consonants may appear in C.

(iii) L is /r, l, w, y/.

(iv) All vowels may occur as long V(V) or short V.

(v) W is /y,w/ which may occur syllable finally (i.e., Z need not be realized) or may precede glottals in Z (but /w/ never occurs before /h/).

(vi) Z may be manifested by just glottal or by a consonant. Restrictions on final consonants are that only [+ nasal] [- cont]
/m,n,nh,ng/ may occur in this position as [+ voiced]; other [- cont] are voiceless, i.e., /p,t,ch,k/. If the final consonant is [+ cont] it must be [+ voiced]; i.e., /r,l/, but not /s/ may occur.

(vii) The only obligatory components of the main syllable are V and at least one preceding element.
Appendix B: The Noun Phrase

The purpose of this appendix is to sketch briefly the overt syntactic constituents of the noun phrase. The semantic basis of the noun phrase will not be discussed here in any length though it is an important area of research; however, components of the noun phrase are taken to be "backgrounded predicates" in the sense of Weinreich 1966.

The NP in Rengao may be summarized in the following string:
QUANT - CLASS - NOUN - PHR.QUAL - POSS - ORIENT - CL.QUAL
These constituents are to be read as quantification, classification, noun, phrase qualification, possession, orientation, and clause qualification.

1 Quantification

Quantitative modification of the noun is expressed through the use of general quantifiers and/or numerical quantifiers. By general quantifier I refer to such forms as:

\[
\begin{align*}
\text{tum} & \quad \text{all} \\
\text{dIq dang} & \quad \text{all} \\
\text{rIm} & \quad \text{each} \\
\text{hmAn} & \quad \text{many} \\
\text{rAyh} & \quad \text{few}
\end{align*}
\]

Numerical quantifiers are simply the expected number system:

\[
\begin{align*}
\text{mOyq} & \quad \text{one} & \text{tadr}\text{ru} & \quad \text{six} & \text{mOyq jAt baar} & \quad \text{twelve} \\
\text{baar} & \quad \text{two} & \text{tapAyh} & \quad \text{seven} & \text{baar jAt} & \quad \text{twenty} \\
\text{pI} & \quad \text{three} & \text{tahaam} & \quad \text{eight} & \text{baar jAt baar} & \quad \text{twenty-two} \\
\text{pun} & \quad \text{four} & \text{tachIn} & \quad \text{nine} & \text{hring} & \quad \text{hundred} \\
\text{padam} & \quad \text{five} & \text{mOyq jAt} & \quad \text{ten} & \text{rabAw} & \quad \text{thousand}
\end{align*}
\]

General quantifiers and numerical quantifiers each occur independently in the noun phrase, but in some cases may cooccur:

\[
\begin{align*}
\text{tum tadroong} \\
\text{all matter} \\
\text{all things}
\end{align*}
\]
d1q dang loong
   all   tree
all the trees'
r1m hi
each day
r1m pi ngaay
each three person
every three persons
hmAn (kA) manUyh
many relater people
many people
rAyh (kA) manUyh
few relater people
few people
m0yq hi
one day
m0yq toq kap0
one classif. water buffalo
one water buffalo

Other less common terms indicating large quantities are:
ratUUh  million
ratal   ?
ratap   ?

ratUUh, like rabAw thousand, is a borrowing from Chamic
(Austronesian), in which it signifies hundred. ratal and ratap
are successively larger than ratUUh and the fact that Rengao
speakers attempt to give them numerical translations seems to
indicate that they are somehow considered numbers; however,
numerical values assigned to them are imprecise. Since ratap
also means to stack in layers, it could be thought of as some-
thing like stacks or manifold.

Approximate numerical quantification is accomplished by
juxtaposing two consecutive numbers, the smaller preceding the
larger:
pi  pun toq kap0
   three four classif. water buffalo
   three or four water buffalo
mOyq baar hring hanam
one two hundred year
one or two hundred years

The form thoy like may also be preposed before numbers for approximate amounts:
thoy mOyq rabAw hlaak
like one thousand piastre
about a thousand piastres

Numbers may be further modified by loy more than, rab1h in excess, and taam jah not-yet have.
aw hloq {loy } baar jAt ngaay
{rab1h }
{taam jah }

I see {more than } twenty people
{in excess of }
{not as many as }

Fractional quantities are expressed by pah side, half and pot quarter in a postposed phrase:
mOyq jA mOyq pah
one hour one half
an hour and a half

Ordinal numeration is to be distinguished from the cardinal numeration described above. Ordinal expressions follow the noun and are introduced by maq, which functions much like a relativizer in other contexts:
koon maq baar
child relativizer two

second child
cal maq baar jAt pun
section relativizer two tens four

twenty-fourth (tactical) zone

2 Classification

There is a category of elements which is preposed before certain nouns especially when such nouns are quantified—these are referred to as classifiers. Classifiers also have a prominent function as noun substitutes in elliptical expressions where the noun is absent. Some modifying constituent must cooccur with such a classifier, however, for it can not stand alone.

Classifiers are of two varieties: restricted and
unrestricted. Elements in the first category function in no other role than as classifiers, while those in the second are regular nouns recruited as temporary measures or characterizations. Among restricted classifiers we may distinguish the general classifier toq from the numerous specialized classifiers. The following examples reveal how varied are the types of nouns that cooccur with toq such that no semantic class unity is readily identifiable: doon ear, chim bird, plAy village, rang arrow, hanIH place, yaq grandmother. On the other hand, specialized classifiers often are associated with a set of nouns with some common feature of shape, intrinsic nature, or shared grouping. The examples below indicate these 'classifiers':

ngaay: person, occurs with kadIr wife; aw I; ywan Vietnamese; koon child; yaq pom Granny Pom; dIk slave.

tong: machines, tools, occurs with se vehicle; plUng canoe; dUuk boat; tagak hand axe; chang knife; gdaaw sword.

qnhoy: short lengths of material, occurs with kasi cord; loong wood; sAk hair.

roh: long lengths of material, occurs with kasi cord, rope; loong wood, log; kroong river; jranq piling, log.

qna: sheet, flat-surfaced items, occurs with hla leaf; hatAr plank; ser dish; hagach roof tile; hla gar paper.

blah: cloth item, occurs with hatAk trousers; aaw shirt; bUuk khan blanket; kapan loincloth.

pom: solid roundish entities, occurs with hmu rock; gar seed; kruyq orange; hapol squash; prEt banana; kachaay bottle.

qmang: occurs with saay fish hook; paam fish trap; srOng narrow fish trap.

tapwAl: herd, crowd, occurs with jam wild pig; chIm bird; ir chicken; ka fish; manUy person.

khUL: group, fleet, occurs with se par airplane; se hayUh car.

kanUk: pile, occurs with phi rice; loong wood.

katog: chunk, occurs with taqnih dirt.

pah: side, indicates one of a pair of body parts, occurs with tI hand; doon ear; mat eye; kateh buttock.

kAt: tie, occurs with rang flower meaning a bunch, bouquet.
Certain modes of measuring prescribed by cultural convention are also specialized classifiers:

*tapOn*ng tl*li* double, handful; *kaxOp* folded leaf, paper, cloth package; *kadOp* clenched handful; *chUp* a pinch (five fingers); *Chep* a pinch (three fingers).

Unrestricted classifiers have independent status as nouns, but due to their semantic content may serve to specify still other nouns. The most common examples involve nouns referring to containers or means of measuring:

mong cup; *kali* glass; *kadOn*ng bag; riw back basket; manhaan bowl.

Unrestricted classifiers are not only containers, however, for the noun gar seed is used with phi uncooked rice, for example, to indicate an individual unit, that is a grain of rice.

3 Nouns and Pronouns

The central constituent in the noun phrase is the noun itself, which establishes the core semantic material which may be optionally elaborated or specified by the peripheral constituents which cooccur with it. It will perhaps be useful to distinguish mass nouns, item nouns, proper nouns and pronouns.

Mass nouns take no classifier if quantified by general quantifiers like hmAn much (many), but they do take classifiers if quantified by numbers. For example, the mass noun daak water in the following pair of phrases takes a classifier *kali* glass only when numerated (pi three).

hmAn daak lots of water
pi kali daak three glasses of water

Other mass nouns of this type are: poor cooked rice; qnhat grass; tagnih dirt; *maah* gold; *jEn* money; phi uncooked rice; gmaaw field rice; loong wood; *tadR*O rice wine; *kayaal* wind; prel hail.

Item nouns are of two types—classifiable and unclassifiable. Classifiable item nouns are those like se vehicle; kroong river; prook squirrel; hvE house; maneng crossbow. Unclassifiable item nouns are ones like mang night; h1 day; bIak piastre; leh turn, time; goor kilometer (approximately); haqat cubit. The following phrases illustrate the manner in which the two types of item nouns are numerated, classifiers toq and roh occurring only in the first two instances:

tapAyh toq se seven vehicles
moYq roh kroong one river
pi mang three nights
mOyq hring hlaak  

one hundred piastres

Proper nouns being characteristically definite and unique in reference are not regularly quantified and hence not often classified, but it is possible in phrases like mOyq ngaay TarIt, literally, one person Tarit, meaning Tarit all by himself. Phonologically, personal names introduce unusual or infrequent elements or sequences as reflected in the following names: nîch, qyAAn, nhewq, mlAy, klaanh, klew, gmyAng, qlíwh, gluUch, kíích, kleer, gyewh, qlíîyh.

The set of Rengao pronouns may be summarized in the following chart:

<table>
<thead>
<tr>
<th></th>
<th>Singular</th>
<th>Dual (inclusive)</th>
<th>Dual (exclusive)</th>
<th>Plural (inclusive)</th>
<th>Plural (exclusive)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st person</td>
<td>aw</td>
<td>ba</td>
<td>ma</td>
<td>bEn</td>
<td>nhEn</td>
</tr>
<tr>
<td>2nd person</td>
<td>ih (respect)</td>
<td>bri</td>
<td></td>
<td>chop</td>
<td></td>
</tr>
<tr>
<td>3rd person</td>
<td>ge/ga</td>
<td>bri</td>
<td>wI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When pronouns are quantified, they are preceded by general quantifiers but followed by enumerative quantifiers. The latter also require a classifier (usually ngaay person) and the former may take one (usually mU group):

rIml wI  
each of them

tum mU wI  
all of them

wI padam ngaay  
the five of them

4 Phrase Qualification

Optionally the noun head may be followed by a constituent that from a semantic point of view expresses a very unrestricted range of modifications—unlike quantification, possesssion, or orientation, for example. Often this constituent has a semantic one-place predicate as its basis, for example:

mOyq toq  
yE  
kAn  

toq  

each  

one classif. house  

large  

a large house

hmAn tadroong tanaap  
mAn  
noom  

many matter  

difficult  

tnoom  

difficult matters

These examples cite adjective-like elements which are a subset of verbals in Rengao. It is important to note that syntactically
this slot directly following the noun will accept phrase qualification but not the semantically similar clause qualification, which involves relative clauses. That is, phrase qualification but not clause qualification, may be further followed by possession and orientation constituents.

5 Possession

A constituent which follows the noun head (and phrase qualification if any) and which refers to an animate referent conveys the notion of possession. In surface terms this category may be manifested by a noun, pronoun, or kinship term:

kadrI so aw
wife former I

my former wife

pIAY b0q pataw
village grandfather rich-man

Mr. Richman's village

maneng qnaaw taang
crossbow new Tang

Tang's new crossbow

nAr poyq bajAw
word speak medicine person

the medicine person's words

6 Orientation

Demonstrative or deictic aspects of the noun phrase are carried in a constituent which must occur in ultimate terminal position in the string, unless there is a relative clause, which takes absolute final placement. Very common lexical elements in this spot are ku here/this, meh there/that (proximal), taw there/that (distal). Locational phrases introduced by relator elements like pao at, gah towards, etc., also function as orientations. Following are some examples:

laan hyE aw ku
yard house I this/here

described yard of mine

pI tong se taw
three classif. vehicle there/that

those three vehicles

pIAY b0q pataw pao chAm
village grandfather rich-man at below
the rich man's village down below

7 Clause Qualification

As mentioned in connection with phrase qualification, a semantically open-ended class of material may be appended to a noun phrase by adding a relative clause as a modifier. These features of this type of modification may be noted: 1) it is introduced by maq, 2) it occurs following all other constituents of the noun phrase, and 3) it is composed of a fuller clause expression. The following are examples:

manUyh maq khOq poyq Rengaaw
person relative can speak Rengao

a person who can speak Rengao

ruyuh kAn wI meh maq aw tek
elephant big they there relative I sell

that big elephant of theirs that I sold

The fact that one gets pairs of sentences like the following reveals that there is an underlying similarity between the two modes of qualification:

manUyh ragAy
person intelligent

an intelligent person

manUyh maq ragAy
person relative intelligent

a person who is intelligent

It is not altogether clear, however, that the first sentence should simply be derived from the second by deletion of maq plus a rearrangement of constituents, since there seems to be a sense of semantic cohesion in the first that is not present in the latter, though this may be attributable to matters of discourse requirements.
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