

## ASPECT AND MOOD AS A NINE-CELL MATRIX

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1. **Perfective and Imperfective.** The aspectual distinctions between Perfective and Imperfective have long been known to students of Slavonic languages. With the publication of Comrie's work (1976), this distinction has made an impact on the studies of other languages as well, and it was found to be a useful one.

Comrie (p. 2) discusses this distinction first in terms of semantics, "the perfective looks at the situation from outside, without necessarily distinguishing any of the internal structure of the situation, whereas the imperfective looks at the situation from the inside, and as such is crucially concerned with the internal structure of the situation, since it can both look backward toward the start of the situation, and look forward to the end of the situation, and indeed is equally appropriate if the situation is one that lasts through all time, without any beginning and without any end."

He shows that this distinction – far more basic to the verbal system than that of tense – is nevertheless described as a tense distinction in the grammars of contemporary languages and also used as such pragmatically. He also discusses some of the morphological markings of aspect, though he does not want to "look in detail at the morphology of any one language or group of languages, since morphological information of this kind...is not in itself of interest to the study of the functioning of aspect within language systems as a whole." (p. 87)

This is where I differ with him. I do agree that the type of morphological marking is not all that important, but in trying to apply the principles he so clearly exposes, I find that attention to form is very important to the understanding of how the system works – first in any one language, and also as a universal concept, which I believe these categories represent.

In my own work in trying to analyze verbal systems, one major concern has been to try to find, as completely as possible, *all* the verbal forms the language

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has in order to study them in relationship to each other. *All* here refers to the non-periphrastic constructions only. The periphrastic constructions need to be studied separately but are eventually needed to give a more complete picture of the verbal system. They are usually more varied than the simple forms.

Semantically, there are obviously all sorts of differences to be found within the verbal system of any one language. Looking at these from the point of view of discovering the aspectual distinctions reveals that many languages have three readily identifiable verb forms. One might be called the "naked" verb consisting of nothing but the verb stem without any modifications whatsoever. This form is often used as a consecutive (following another fully inflected verb and being dependent on it), or it might be found in the imperative (second singular form). This form I call the *neuter* form of the verb.

There are usually two further forms, one of which is used with a past tense type of meaning – this I provisionally call the perfective – the other with a non-past meaning – which I call imperfective. These are derived from the neuter form.

2. **Voice.** Before proceeding further, a word should be said about distinguishing the three forms from what might be called the *voice* of the verb. It is commonly understood that voice can potentially distinguish between *active*, *passive*, and *middle*, or, as Webster puts it "any of the forms of a verb showing the connection between the subject and the verb." In French linguistics the term voice includes the relationship of the verb to the object as well as to the subject (Dubois et al. 1973). In my own work (Wiesemann et al. 1984), I have been using the term to cover the relationship between the verb and its participants as seen by their role structure (as defined by Pike and Pike 1977, following Hale 1973). This usage includes such concepts as inherent voice – by which we mean the roles necessary so that the action can be carried out, as well as indicating the difference between actions and states – and derived voice, which includes passives, infinitives (characterized by loss of agent, but not necessarily of the other participants), participles, etc. It also includes the direction distinction found in verbs of motion – inherent in English as in *go* and *come*; derivative as in Zulgo *dá-ha* 'go away from' (egressive motion) *dá-áha* 'go towards' (ingressive motion) (Haller et al. 1981) In Zulgo, the direction affixes are used with many more verbs than would be possible in English, often when motion is not overtly part of the meaning of the verb such as 'getting dressed' in which the directional is obligatory.

The non-active voice distinctions, when derived, often are formed by affixation on the neuter form of the verb. The affixes form a different system from that used to mark the aspect distinctions, though these may be marked by affixes as well.

3. **Neuter.** Although there are only two derived aspects, perfective and imperfective, the aspectual system has to be studied by taking into consideration the neuter form as well, making it a three way distinction. So although one cannot conceptually speak of the neuter as an aspect, in order to study the verbal system



in terms of form and function – something very basic to the way we do linguistics if we have been reared in the framework of tagmemics – we must study this form alongside of the derived aspects.

One language has been found so far (out of the 10 languages studied within this framework) where a four-way distinction had to be considered, adding an emphasis form to the other three (cf. table 10),<sup>1</sup> both in the aspect and in the mood vectors. No attempt is made here to define emphasis (but see Wiesemann et al. 1984a).

4. **Mood.** But this threefold aspect distinction is not enough to begin to make sense out of the verbal system of a language. Another dimension has to complement it, that of *mood*, defined as the attitude of the speaker to the message. The traditional distinction between indicative and subjunctive mood is indeed a basic one. To this can be added the injunctive or imperative mood, which is different from the subjunctive mood and should be treated as a separate category. The interrogative mood seems to belong to an entirely different dimension and can best be studied under the heading of “combination of predications,” as Longacre (1980) calls it (though he does not treat questions under that heading).<sup>2</sup>

Sometimes it is helpful, as a discovery device, to abandon traditional terminology, since it is easy to be blinded by the semantic implications of certain terms. In this article, I follow the terms often found in more recent literature (for example, in Hopper 1982) for the moods: *realis* (roughly equivalent to indicative), *irrealis* (roughly equivalent to subjunctive), *necessity* (roughly equivalent to imperative). Realis forms denote what has really happened or is happening now (or expected to happen with a degree of certainty). Irrealis forms denote what is expected to or might happen (often future forms) and what could happen: the conditional is usually expressed by an irrealis form and the non-realizable condition or counter-factual always seems to be. Necessity forms include the imperative forms (second singular and plural) and might include such forms as denote the wish or necessity of something to happen.

5. **Matrix as a typology.** Aspect and mood together make a nine-cell matrix, the cells being filled with the verb forms of the language. As a matter of fact, many cells will be filled with more than one form in order to accommodate the whole verbal system of (just about) any one language. This shows that obviously the aspect-mood distinctions are not the only ones the language has. The present study looks at only these two distinctions, however, and leaves the other

<sup>1</sup> Since writing the above three more languages have been added to the sample (though not included here): Pulaar – West Atlantic, Senegal; Eve – Kwa, Togo; Kabiè – Voltaic, Togo. In Kabiè a dimension of emphatic forms had to be added in the aspect vector. The forms found are quite different than in Daba. So no attempt is made to define “emphasis” in this paper in either vector.

<sup>2</sup> The reason for treating interrogatives among the combinations of predications is that they form a unit together with their possible answers which is best studied as a whole.

distinctions to be studied separately. The aspect-mood distinctions seem to be more basic to the verbal system than any other distinction (with the exception of voice as defined above), and exactly what these other distinctions are is not yet clear (but see the interesting discussion of the use of verbal forms by Givón 1982). The study presented here does give some indication, however.

ASPECT-MOOD NINE-CELL MATRIX			
	neuter	perfective	imperfective
realis	r-n	r-p	r-i
irrealis	i-n	i-p	i-i
necessity	n-n	n-p	n-i

In the appendix, this matrix is filled out for English, French, German, Kaingáng (Jê, Brazil), Denya (Mamfe Bantu, Cameroon), Kom (Ring, Cameroon), Tikar (Bantoid, Cameroon), Bangando (Adamawa, Cameroon), Mofu (Mafa, Central Chadic, Cameroon), Daba (Central Chadic, Cameroon). Data for each language is also given there. The following remarks are based on the analysis of the matrices presented.

**6. Aspectual Markers.** The aspects are marked variously in the sample. The actual forms are found in the appendix.

English. Neuter is marked by the uninflected or bare verb stem except for the 3rd person singular *-s*: perfective is marked in regular verbs by *-ed* (in irregular verbs two forms can be seen, such as *went* and *gone*), and the imperfective by *-ing*.

French. For the simple forms the neuter is marked by the bare verb stem plus the suffixes distinguishing persons, the perfective carries a *-Vs* suffix, the *V* being the thematic vowel and the *s* disappearing before certain consonants. The imperfective is marked by a *-Vr* suffix, where *V* again is the thematic vowel. In the complex forms the aspects are marked by the corresponding forms of the auxiliary, followed by the past participle.

German. For the simple forms the neuter is marked by the basic verb stem with person suffixes (with Umlaut depending on the person), perfective by the stem with Ablaut and the person suffixes. There is no imperfective. In complex forms neuter is marked by the corresponding forms of the auxiliary plus the past participle, whereas the imperfective is built with the auxiliary *werden* plus the infinitive. In the combined matrix of oral speech, the situation looks similar to English: inflected verb stem for neuter, past participle for perfective, and infinitive for imperfective.

Kaingáng. In the early analysis, the troublesome verb allomorphs seemed to have no significance whatsoever. They were termed 'syntactically conditioned variants' and their occurrence described (Wiesemann 1972). With the present analysis, meaning can for the first time be attached to these alternants. The *fa*

~ *fā* alternation of the neuter is one that occurs in all the roots found in the language, whether noun, verb or other. The perfective is marked by a suffix *-g*, the imperfective by *-n* ~ *-nh*. It is true that not all verbs have such forms (see Wiesemann 1972), some verbs having one form for all aspects, some marking the perfective only and having one form for neuter and imperfective.

It was difficult to decide which of the two suffix forms to label perfective, and which imperfective. In comparison with other languages, the present identification seems the best: imperfective is also the citation form (compare the use of the infinitive in German) and it is the form that combines with other verbs or adverbs to give such aspectual meanings as 'completive.' It is also the form used for ergative expository clauses – there in contrast with other languages having ergative constructions. The perfective, on the other hand, has such forms as narrative, which is most often a perfective form.

Denya. The neuter is marked by zero suffix (it may contain a prefix not found in the other aspects), perfective by the suffix *-{né}* or *-gè*, imperfective by the suffix *-{cè}* or *-gé* or *-{gè}*.

These suffixes all have some forms in common, but as a whole paradigm, when examined with a large number of verbs of the language, they differ from each other. Because of the similarity, Abangma (1981, 1984) wants to call the neuter form perfective, and the suffixed forms imperfective. He can do this only by not considering the past relative form which clearly is outside the pattern. The 2nd person imperative is doubtful in any case. Denya clearly is a language in which the perfective, still seen in the past relative form, is disappearing, and the neuter is taking its place. This statement receives credence from the matrix past form which also has no suffix.

Kom. The neuter form is the bare verb, with a floating  $\dot{H}$  following it in irrealis mood, a floating polar tone ( $\dot{P}$ ) in necessity mood, where the verb may be followed by *-a* for emphasis. The perfective is marked by a floating  $\dot{L}$  tone preceding the verb which lowers the H tone verbs to M tone, except before an adverb, in which case the H tone verbs become L. The L tone verbs remain L. The imperfective is marked by a floating  $\dot{H}$  tone before the verb stem, raising the L tone verbs to M, H tone verbs remain H. In a causative construction, it is a floating polar tone instead of a  $\dot{H}$ . In this aspect the verb is also followed by a vowel or by *-a* which carries either the stem tone or the tone suffix.

Tikar. The neuter is indicated by the bare verb, which gets a floating tone from the subject in the positive but not the negative form. The perfective is tonally the same as the neuter, but the verb is suffixed by one of a set of perfective suffixes. The imperfective shows a suffix to the verb stem. This suffix carries a high tone and its segments may be fused with the stem so that only the tone is actually seen. In some irrealis forms this is followed by the suffix *-é*, and then the verb tone is completely taken over by the suffix high tone. The imperfective realis constructions are often periphrastic, using verbs or auxiliaries to make the construction. These seem to be followed by a floating  $\dot{H}$  tone which is visible when

the stem tone is L (it then becomes LH). In all the periphrastic imperfective constructions O is situated between the auxiliary and the verb.

Bangando. The neuter is marked by the verb stem, which is followed by some floating tones in all but the negative imperative/optative forms. The perfective is marked by the suffix *-a*, with L tone in realis mood and H tone in irrealis mood. The imperfective is marked by the suffix *-i*, with H tone in realis and L tone in irrealis mood.

Mofu. The neuter is marked by zero prefix, perfective by a *ta-* or *ma-* prefix, the imperfective by *fa-*, *da-*, *fada-* prefixes, i.e. the derived aspects seem to be periphrastic constructions (the affixal status of the markers is questionable). In addition, the perfective is obligatorily accompanied by an adverbial: these are optional in the neuter and imperfective.

Daba. The neuter is marked by the occurrence of the verb stem preceded by the *ka* infinitive marker (periphrastic construction), except in the imperative forms, which are simple. The perfective is marked by a floating  $\text{L}_v$  which precedes the verb. In the imperfective a floating  $\text{H}$  precedes the verb and is often not detected at all but is evident in some contexts (see full description in Lienhard 1986). The emphatic aspect is marked by two floating  $\text{HH}$  which precede the verb and which always raise the verb tone.

To summarize: *Neuter* is always the bare verb stem, though sometimes other markers join it (person or mood markings). *Perfective* is marked by tone change (often a  $\text{L}_v$  tone prefix; Denya, Kom, Bangando, Daba) or by suffixes (English, French, German, Kaingáng, Denya, Tikar, Bangando), or by periphrastic constructions (English, German, Mofu). *Imperfective* is marked by tone change (often a  $\text{H}$  tone prefix; Kom, Tikar, Bangando, Daba) or by suffixes (English, French, Kaingáng, Denya, Kom, Tikar, Bangando), or by periphrastic constructions (English, German, Kom, Tikar, Mofu). Some of such markers are combined in the same language. Neuter seems to be disappearing in Bangando, being supplanted by the imperfective. In Denya it is the perfective that is losing out to the neuter. In Tikar, neuter and perfective are closer in form than imperfective. So there are cases in which the direction seems to be toward a six-cell matrix.

## 7. Mood Markers.

English. Realis is marked by use of the simple verb forms, or, in the emphatic and negative forms, with the help of an auxiliary. Irrealis is marked by mood auxiliaries. Necessity is marked by the simple imperative form or constructed with the help of auxiliaries.

French. Mood is marked by the person suffixes – differing sets for realis, irrealis and necessity (except for the imperfect forms, which are the same as the irrealis ones, though the whole construction seems to be realis).

German. Mood again is marked by different person suffixes in the simple form, by the use of the neuter stem of the auxiliary for the realis and the



perfective stem of the auxiliary for the irrealis moods in the complex forms. Necessity is a special form in both matrices.

Kaingáng. Realis is marked by a variety of combination possibilities with particles that contain information about the type of discourse employed, combinations with adverbs or other verbs, and use in main or subordinated clauses. Irrealis is marked in two ways: with the help of the purpose particle *jé ~ -nh* and by the use of the particle *vē* as an unrealized condition indicator, which follows the particle containing the discourse information. The purpose particle is used as a subject indicator in the neuter form, or a verbal suffix in the imperfective form (it also is used as a postpositional conjunction to mark purpose clauses). Necessity is marked by a whole set of special markers and includes the emphatic forms used particularly in questions.

Denya. Realis is marked by the possibility of prefixes occurring and by the tone on the aspectual suffixes: H for perfective and L for imperfective (a pattern opposite to the other languages where tone changes occur). The tone changes on the verb seem to have to do with emphasis, H tone for emphatic forms. Irrealis is a different suffix paradigm marked by flip-flop tone on the imperfective suffix, and by H tone on the subject (except for the conditional). The same H tone on the subject occurs also in the necessity forms (where these occur with a subject), and the tone on the aspect suffixes is flip-flop in relation to the realis forms. Necessity is thus distinguished from irrealis mainly by the absence of a subject in the neuter and perfective forms, by a different suffix paradigm in the necessity forms.

Kom. Realis is marked by combination with various tense particles. Irrealis is marked by particles additional to tense: conditionals, or negatives *ká* and *ká wà* or *kâ* (prohibition), *bú* (perfective), or *wi* (imperfective). There also seems to be a floating  $\bar{H}$  tone suffix affecting the verb in the neutral forms. Necessity is marked by absence of subject in the neutral forms, *ká* negative plus a polar floating tone following the verb on the emphatic marker *-a*.

Tikar. Realis is marked in the neuter and perfective positive forms by a reduplication of the last subject tone which is seen on the verb like a tonal prefix. In the perfective there is a set of suffixes, in the imperfective a set of auxiliaries to mark the realis forms. The negative is *kán* in neuter and perfective (follows the verb), *ká* in imperfective (precedes the verb but follows the auxiliaries). There is a different pronoun set ( $S_1$ ) from the imperfective ( $S_2$ ). This last one is the same as the object or logophoric set (Stanley 1982). Irrealis is marked by the fact that in perfective and imperfective there is only one suffix each which can occur (in the perfective this suffix is part of the realis set, not so in the imperfective). 'If' for the conditional constructions is *á ~ H-* for neuter and perfective, *kí ~ -H* for imperfective. Negatives are found in imperfective only, *shí* which seems to be an auxiliaries and may possibly also carry the imperfective irrealis suffix *-é*, though this form is not certain. Necessity is marked by absence of subject, or by  $\bar{H}$  after the verb, and by the negative *bá* which is preceded by a floating tone from the subject when the subject precedes it (in the negative future forms).

When there is a subject it is the same as the realis ( $S_1$ ) set.

Bangando. Realis is marked by L tone on the perfective and H tone on the imperfective suffixes, while in irrealis these tones occur flip-flopped. In the neuter form irrealis has a floating  $\text{B}\bar{\text{H}}$  tone after the verb in the positive form, no special tone in the negative form. Similarly in the necessity forms there is a  $\text{B}$  following the positive form, no special tone in the negative form.

Mofu. Realis is marked by absence of any adverb of group 2 ( $\text{Av}_2$ ) which is the special mark of irrealis. The imperative forms are marked by absence of subject in the positive and by *dáa bá* in the negative.

Daba. The moods are marked by differing pronominal sets. There are four sets: realis (possibly the basic one), irrealis (seems to contain a fused suffix), necessity (a shortened form) and emphatic (followed by *-á*).

To summarize: *Realis* is normally the unmarked form. It may contain special person or mood markers (English, French, German, Denya, Kom, Tikar, Daba). *Irrealis* is always marked: often in the subject (French, German, Kaingáng, Denya, Tikar, Daba) or by flip-flop tone (Denya, Bangando), or by special other markers (English, German, Kaingáng, Kom, Tikar, Mofu). *Necessity* includes in all languages the imperative (subjectless) forms and may contain other markers of tone change and special particles.

8. **Entries in the Cells.** Having thus identified the dimension of the matrix on the basis of form and meaning, we now turn to the individual entries. In the following sections each cell is examined to see what kinds of entries it contains in the sample.

### 8.1. Realis-Neuter.

English. The cell contains the present forms, including present emphatic and negative.

French. In the simple matrix there are basically two types of entries: the present and the imperfect. The difference in use seems to be one of commentary (present) over against description in narrative (imperfect), both with incomplete aspectual meaning (see Weinrich 1977). In the complex matrix the same types of entries are found: *passé composé* (used for commentary with complete aspectual meaning) and *plus-que-parfait* (used for descriptions with complete aspectual meaning).

German. The simple matrix contains the present form, the complex matrix contains the perfect form (used for simple past in oral speech), and the combined matrix contains the present form.

Kaingáng. The cell contains what might be roughly identified as a past form. It is often used interchangeably with one of the perfective forms to indicate end of paragraph, though some people use it in narrative like a consecutive.

Denya. The cell contains a past form and several aspectual distinctions we might normally think of as imperfective: inceptive, habitual, iterative. It also

contains a consecutive form.

Kom. The cell contains only the sequential form (defined as a combination of two clauses with different subjects, in sequence relationship like the consecutive), and the assertive consecutive (the "normal" consecutive is in the realis-imperfective cell).

Tikar. The narrative (consecutive) is found in this cell, as well as the negative narrative.

Bangando. The cell is empty.

Mofu. The cell is filled with past tense forms.

Daba. The sequence as well as the consecutive is found in this cell.

To summarize. We find mainly past, present and consecutives in this cell. It stays empty in Bangando, where the expected forms are found in the realis-imperfective cell.

## 8.2. Realis-Perfective.

English. Here we find the simple past as well as the perfect and past perfect forms.

French. In the simple matrix the *passé simple* is found, used in narratives for incomplete events; in the complex matrix the *passé antérieur* is found, used for the same but with completive aspectual meaning.

German. In the simple matrix the simple past is found, in the complex matrix the *Plus-quam-Perfekt*, and in the combined matrix the *Perfekt* which is used in oral speech for the simple past.

Kaingáng. The forms usually found in procedural, descriptive and narrative texts fill this cell, as well as any verb followed by the negative *tū* and the adverbial *e* 'much', both quantifying adverbials.

Denya. The cell is filled with the past used in relative constructions (or for emphasis) and with the matrix past form in a serial verb construction (or consecutive).

Kom. The cell is filled with consecutive forms, simple past and past progressives. All the past forms (except the sequential) are found here. The past progressive is a combination form of perfective and imperfective (see 8.11).

Tikar. The positive and negative past forms fill this cell.

Bangando. The past and, surprisingly, the continuative are found in this cell, the latter as a periphrastic construction.

Mofu. The cell is filled with past and anterior forms.

Daba. The narrative and accomplished or realizable conditions are found in this cell.

To summarize. The realis-perfective cell is closely linked with past tense and narrative or descriptive text. It is filled in all the languages of the sample.

### 8.3. Realis-Imperfective.

English. The progressive forms (in all tenses) fill this cell. In the cell for the adjectives the forms in this cell are used to describe an ongoing state (whereas the realis-perfective forms are looking at the condition as an event).

French. In the simple matrix the future forms fill this cell, in the complex matrix it is the future antérieur.

German. In the simple matrix this cell stays empty, in the complex matrix as well as the combined matrix, it is filled with the future forms. Here we also find the neuter forms of modal verbs combining with the infinitive to make different future forms with an added modal component.

Kaingáng. There are three sorts of entries. We find the ergative constructions used in expository discourse, the combinations with other verbs (in a serial verb construction) or with the non-quantifiable adverbs, and finally the verbs of dependent clauses.

Denya. The non-past forms fill this cell: simple, in the relative clause (also used for emphasis) and as the matrix verb in a serial verb construction. They are called non-past to show that they can be present or future.

Kom. A special kind of consecutive, describing how the main action is done, is found in this cell (simultaneous actions), as well as the continuative, habitual, future, and progressive forms, also an anterior and a consequence form.

Tikar. The positive and negative continuous and the positive future forms fill this cell.

Bangando. The habitual, consecutive, focalized, and, surprisingly, the refusal forms fill this cell.

Mofu. The progressive and future forms fill this cell.

Daba. This cell stays empty. The expected forms are found in the irrealis-imperfective cell.

To summarize: This cell is filled mainly with progressive, present, and future forms. The fact that imperfective stays empty in Daba suggests that it may be more closely linked with the irrealis mood than with realis, which seems to be more definitely the domain of the perfective. In fact, the forms expected here are found in the irrealis-imperfective cell in Daba. Future forms are always somewhat uncertain and in some languages seem to pattern in the irrealis rather than the realis.

### 8.4. Irrealis-Neuter.

English. A number of modal verbs combine with main verbs in periphrastic constructions. The forms may be positive or negative. They seem to be inherently emphatic.

French. In the simple matrix the cell is filled with the subjunctif présent, to express wish; in the complex matrix with the subjunctif parfait, to express wish



with an anteriority component.

German. In the simple matrix it is filled with the present subjunctive, in the complex matrix with the perfect subjunctive, in the combined matrix with the past subjunctive which moves over from the irrealis-perfective cell. The present and past subjunctives can be used interchangeably, the past form being more common. It is used to express wish, realizable condition, and also in indirect speech. Here the difference between subjunctive present and past is still somewhat active, though the past form is used more colloquially.

Kaingáng. The cell is filled with the form expressing desire.

Denya. The cell is filled with the non-second person imperative, which expresses desire.

Kom. We find a consequence form, and the imperative matrix form (in a serial verb construction), as well as a prohibition.

Tikar. The cell is filled with positive realizable conditions.

Bangando. Here it is the unrealized conditions, positive or negative, that fill the cell.

Mofu. Adverbials expressing desire, obligation, and ( $Av_2$ ) condition are found in the constructions of the forms in this cell.

Daba. The variety is greater here, because the irrealis has the additional meaning of generic action. So in this cell we find such forms as habitual, future, negative future, and future unrealized condition.

To summarize: Desire and obligation, as well as condition (sometimes realizable, in other languages unrealized) fill this cell. It is filled in all the languages of the sample.

### 8.5. Irrealis-Perfective.

English. The same modals appear as in the irrealis-neuter cell, but with an anterior projection into the future.

French. In the simple matrix we find the subjunctif imparfait to express wish, in the complex matrix the subjunctif plus-que-parfait to express wish with an anteriority component. The difference to the forms that fill the irrealis-neuter cell may be that of degree of politeness.

German. In the simple matrix the cell is filled with the past subjunctive, in the complex matrix it stays empty, in the combined matrix it is filled with the perfect subjunctive, so that here an exchange of cell forms has taken place: the irrealis-neuter filler has moved to irrealis-perfective and vice versa. The meaning difference to the irrealis-neuter form is that of an added component of anteriority.

Kaingáng. Unrealized conditions are found in this cell.

Denya. This cell stays empty.

Kom. This cell contains two forms for realizable conditions, and two negative forms, the negative past and a prohibition.

Tikar. This cell stays empty.

Bangando. This cell contains a form for realizable conditions.

Mofu. This cell is filled with forms containing a doubt component 'maybe'.

Daba. Unrealized past condition is found in this cell.

To summarize: Conditions seem to come here most often, as well as further forms for desire, with an added component of anteriority in some languages. The cell is not filled in Denya and Tikar which confirms that perfective is more closely linked to the realis mood. In both languages conditions are found in the irrealis-imperfective cell, in Tikar some also fill the irrealis-neuter cell.

### 8.6. Irrealis-Imperfective.

English. The modals of irrealis-neuter are combined with the progressive. Such a combination is unusual for the adjectives.

French. Here we find in the simple matrix the *conditionnel présent*, in the complex matrix the *conditionnel passé*. The difference in meaning is one of anteriority.

German. In the simple matrix this cell stays empty, in the complex matrix it is filled with the perfective form of modal verbs with the main verb in the infinitive, or with the perfective form of the future auxiliary. Both are used for realizable conditions, sometimes also for unrealized conditions.

Kaingang. We find intention forms in this cell, and the unrealized condition in expository text.

Denya. We find the conditional and the negative imperative here.

Kom. The cell is filled with the unrealized conditions as well as the present (or habitual) negative forms and refusal (or future negative).

Tikar. Again we find unrealized conditions in this cell, but also negative realizable conditions and perhaps negative unrealized conditions.

Bangando. We find future forms as well as habitual and consecutive negatives (the negative counterpart of the realis-imperfective positive ones).

Mofu. Conditionals fill this cell.

Daba. Here we find positive and negative general truths as well as the sequential, forms we would have expected in the realis-imperfective cell which stays empty in Daba.

To summarize: Again all sorts of conditions are expressed in this cell, as well as wish or obligation, maybe with heightened uncertainty over against the other irrealis forms. This would also explain the preference of negative conditions for this cell. It is filled in all the languages of the sample.

**8.7. Necessity-neuter.** In all the languages but Tikar and Daba the simple imperatives fill this cell. In Daba we find the necessity mood combined with the emphatic aspect to make the imperative. In Tikar we find the simple imperative in the necessity-imperfective cell. Apart from the simple imperative, we find in this cell:

French. A simple and a complex imperative to make the *impératif présent* and *impératif passé* and again the difference is one of anteriority.

German. There is a complex form also which fills the necessity-perfective cell in the combined matrix.

Kaingáng. The direct or immediate imperative is found in this cell, as well as a form giving permission, another issuing a strong prohibition, and finally the emphatic forms found in polar questions.

Kom. To fill this cell, outside of the imperative, there is an emphatic imperative form, an imperative consecutive, and a prohibition.

Tikar. Wish and prohibition fill this cell.

Bangando. The negative imperative and also optative forms are found here.

Daba. The consecutive imperative is found here, as well as the prohibition which can be either general or may apply to a specific instance only.

To summarize: This cell is for the imperative par excellence and is also filled in all the languages of the sample. In addition, there can be hortatives or different kinds of negative including prohibitions.

**8.8. Necessity-Perfective.** Only two languages have a possible form in this cell: English and German. In each case the difference from the necessity-neuter cell is one of anteriority. In Denya, this cell seems to be filled with the second person plural imperative, belonging to the same paradigm as the form in the necessity-neuter cell (second person singular imperative). All the entries in this cell are somewhat problematic.

**8.9. Necessity-Imperfective.** This cell may be filled in English and German; it is filled in Kaingáng, Denya, Tikar, and Daba. In Kaingáng and Denya, the meaning is that of a general imperative, to be obeyed any time. In Daba it is, on the contrary, a prohibition that applies to a specific instance only. In Tikar, the negative future forms seem to fit here, as well as the simple imperative.

To summarize: Although the necessity mood is often restricted to the neuter aspect, different kinds of forms may be found, particularly in the imperfective aspect. One could hypothesize that since Tikar has the simple imperative in this cell, it has lost an original generic-specific imperative distinction.

**8.10 Emphatic Forms.** In Daba, the dimension of emphasis has to be added to the basic matrix, both in the aspect and in the mood vectors, giving the possibility of seven extra cells. Of these three are filled: realis-emphatic, with an emphatic accomplished form and the forms used in subordinated clauses

(temporal and relative); neuter-emphatic, with the imperative form; emphatic-emphatic, with the emphatic statement of fact form. Such forms are found in other cells for other languages, though the question of dependent clauses probably bears looking into more extensively (see the realis-imperfective forms for this in Kaingáng).

**8.11. Combination Forms.** Two languages have forms that combine perfective and imperfective into one complex form: German and Kom. In German, *er wird* (imperfective) *gegangen sein* (perfective), is a projection into the future with either anterior or hypothetical meaning. *Er würde gegangen sein* is always hypothetical, with anterior meaning. In Kom, we find the past assertive as a combination of perfective plus imperfective, the second form being followed by a floating *Ḥ* tone.

**8.12. Summary of the Matrix.** The findings<sup>3</sup> can be summarized in the following chart in a very tentative generalization:

	neuter	perfective	imperfective
r	usually filled: consecutives, sequentials	always filled: past forms	usually filled: non-past forms, progressives
i	always filled: wish, conditionals	usually filled: (negatives), conditionals	always filled: (negatives), conditionals
n	always filled: (specific) imperatives, prohibitions	seldom filled: anterior imperative	sometimes filled: general imperative, (specific prohibition)

It seems obvious that all the cells can be filled, though some are more likely to stay empty than others, particularly the necessity-perfective cell.

**9. Use of Forms.** A study of this nature, trying to see the relationship between all the possible verb forms in a given language (though in this sample it may well be that for some languages the study of the forms is not complete), has to be followed by an in depth study of the actual use of the forms. This can be done by studying the less formal conversations as well as the more formal discourse structures of monologue. An example of this given from French may suffice to give some idea. Similar studies can be found in Abangma (1981), Cortes (1983), Givón

<sup>3</sup> The data from the added languages confirmed these findings. For the cells not always filled this is the new count:

r-n unfilled in Bagando (see r-p)

r-i unfilled in Daba (see i-i)

i-p unfilled in Denya, Tikar, Eve

n-p maybe filled in English, German, Denya?

n-i unfilled in French, German?, Kom, Bagando, Mofu.



(1982), Haller et al. (1981), Jackson (1980), Lienhard (1986), Wiesemann (1980).

Following Weinrich (1977) and somewhat expanding his findings, we can see how the different verb forms in French contain very different kinds of discourse information. These can be divided into event, description, commentary, projection, unreal, request and wish. There is also another dimension, that of incomplete over against completive aspect, incomplete relating to 'now' in an absolute or a relative sense, the completive being anterior to 'now.' Relating these two kinds of information, the forms can be said to have the following uses:

	'now'	'anterior'
<b>event (r-p)</b>	passé simple	passé antérieur
<b>description (r-n)</b>	imparfait	plus-que-parfait
<b>commentary (r-n)</b>	présent	passé composé
<b>projection (r-i)</b>	future I	future II
<b>unreal (i-i)</b>	conditionnel I	conditionnel II
<b>request (n-n)</b>	impératif présent	impératif passé
<b>wish (i-n)</b>	subjonctif prés	subjonctif passé
<b>polite wish (i-p)</b>	subj. imparfait	subj. plus-que-parf.

10. **Annexes.** The data on which this study are based will now be presented for each of the 10 languages. Each set of data is followed by a summary chart. Only the charts have been included for English, French and German.

### 10.1. English.

#### Chart 1A. Verbs.

walks does (not) walk did (not) walk	walked has (not) walked had (not) walked	is (not) walking was (not) walking has (not) been walking had (not) been walking
can (not) walk may (not) walk must (not) walk shall (not) walk will (not) walk	will (not) have walked	will not be walking  will not have been walking
walk!	(have (not) walked!)	(be (not) walking!)

**Chart 1B. Adjectives and Passives.**

is (not) good/liked was (not) good/liked	has (not) been good/liked	is being good/liked
can(not) be good/liked	can(not) have been good /liked)	(can(not) be being good/liked
be (not) good/liked!		keep on being good /liked!

**10.2. French.****Chart 2A. Simple forms.**

arriv-ons fais-ons présent arriv-ions fais-ions imparfait	arrivâ-mes fîmes passé simple	arriver-ons fer-ons futur I
arriv-ions fass-ions subjonctif présent	arrivass-ions fiss-ions subjonctif imparfait	arriver-ions fer-ions conditionnel I
arriv-ons fais-ons impératif présent		

**Chart 2B. Complex Forms.**

avons fait passé comp. avons fait plus-que-parfait	eûmes fait passé antérieur	aurons fait F antérieur II
ayons fait subj. P	eussions fait subj. p.-q-parf.	aurions fait cond. II
ayons fait imp. P		

The difference between the two charts – which display the same basic structure – lies in the fact that for the composite forms a dimension of time removal has been added.

### 10.3. German.

#### Chart 3A. Simple Forms.

er geht (nicht)	er ging (nicht)	
dass er (nicht) gehe	dass er (nicht) ginge	
geh!		

#### Chart 3B. Complex Forms.

ist gegangen	(war gegangen)	wird gehen
sei gegangen		würde gehen
sei gegangen!		

In German the simple forms are defective in the sense that they do not account for what is normally perceived as the full paradigm of forms. In the simple form matrix the whole imperfective column stays empty, the complex forms are needed to fill it out. The forms in the perfective column are special narrative forms, not normally used in speaking. In oral style it is the neutral forms of the complex form matrix that are used to indicate past tense. So it is the combination of the simple and complex form matrices that gives the full range of the basic system – without taking into account the many combination possibilities with modal and other verbs.

#### Chart 3C. Combined matrices of Oral German.

er geht	er ist gegangen	er wird gehen er möchte gehen
er ginge	er sei gegangen	er würde gehen er möge gehen
geh!	sei gegangen!	(sei am gehen!)

Special forms are combinations of perfective and imperfective: *er wird* (imperfective), *gegangen sein* (perfective), *gegangen sein würde*.

**10.4. Kaingáng.** In Kaingáng the aspects are formally marked by different forms of the verb stem (formerly called syntactically conditioned allomorphs), whereas the moods are represented by a whole set of markers each (formerly called aspect markers) which essentially differentiate kinds of information in terms of discourse types. These normally follow the verb, i.e. occur at the end of the clause, but one irrealis marker occurs in the series of the subject indicators (a common feature in other Jê languages).

r-n	gār	fa	ti,	rākétá	'he harvested corn yesterday'
	O	V	S	yesterday	past non-final

	rākétá yesterday	ti S	gār O	fā V	'yesterday he harvested corn' past clause final		
r-p	gār O	fāg V	ti S	tī hab	'he habitually harvests corn' with procedural marker		
	gār O	fāg V	ti S	nī desc	'he is harvesting corn' with descriptive marker		
	gār O	fāg V	ti S	mū narr	'he is harvesting corn' with narrative marker		
	gār O	fāg V	tū neg	ti S	nī desc	'he is not harvesting corn' with negative marker	
r-i	ti pr	tỹ erg	gār O	fān V	vě exp	'he harvests corn' expository (ergative constr.)	
	gār O	fān V1	há V2	ti S	nī desc	'he harvests corn well' V1 in serial verb constr.	
	gār O	fān V	sór av	ti S	nī desc	'he wants to harvest corn' in construction with av	
	...ti pr	tỹ erg	gār O	fān V	kỹ pp	...'when (because) he was harvesting corn' subordinated clause	
i-n	ti S	jé int	gār O	fā V	'may he harvest corn!' with intentive marker j/ə'e		
i-p	gār O	fāg V	ti S	tī hab	vě, exp	hāra... but	'he would harvest corn, but...' conditional procedural
	gār O	fāg V	ti S	nī desc	vě, exp,	hāra... but...	'he would harvest corn, but...' conditional descriptive
	gār O	fāg V	ti S	mū narr	vě, exp,	hāra... but...	'he would harvest corn, but...' conditional narrative
i-i	gār O	fān (-nh) V-int	ke will	ti S	nī desc	'he may harvest corn' with intentive marker -nh	



	ti pr	tỹ erg	gār O	fān V	vē exp	vē, exp,	hāra.. but...	‘he would harvest corn, but...’ cond. expository
n-n	gār O	fa V	rỹ imp	‘harvest corn!’ (immediately) immediate imperative				
	ha perm	gār O	fā V	ge then	‘Ok, harvest corn then’ permission			
	ker pro	gār O	fā V	hē' pro	‘don’t you dare harvest corn!’ prohibition (strong)			
	ā S	mỹ Q	gār O	fā' V-emph	‘did you harvest corn?’ emphasis (in polar question)			
n-i	gār O	fānnī V-imp	‘harvest corn!’ (anytime) general imperative					

Chart 4. Kaingáng.

fa~fā	fāg	fān
fa S past S fā past	V tī procedural V nī descriptive V mū narrative V tū negative	pr erg V vē expository V1 V2 serial verbs V av adverbial V postposition subordinated clause
S jé fā wish	V tī vē procedural condition V nī vē descriptive condition V mū vē narrative condition	V -nh intention pr erg V vē vē expository condition
fa rỹ immediate imperative ha fā ge permission ker fā hē' prohibition S Q fā' emphatic		V-mnī general imperative

10.5. Denya.

r-n	à-wá	'he killed'
	pr-Ø-V-Ø	past
	à-lé-wá	'he begins to kill'
	pr-lé'-V-Ø	inceptive
	à-là-wá	'he habitually kills'
	pr-là-V-Ø	habitual
	à-mà-wá	'he kills again'
	pr-mà-V-Ø	iterative
	à-cwò	wá
		V <sub>2</sub> -Ø
		'he came and killed'
		consecutive

r-p	á-wà-né pr-Ø-Ṿ- $\{né\}$	'he who killed' relative past
	à-cwò wá pr-Ø-Ṿ <sub>1</sub>	'he came and killed' matrix past
r-i	à-wà-nè pr-Ø-Ṿ- $\{c\grave{v}\}$	'he kills' non-past
	á-wá-nè pr-Ø-Ṿ- $\{c\acute{v}\}$	'he who kills' relative non-past
	à-cwò-ò wá pr-Ø-Ṿ <sub>1</sub> - $\{c\grave{v}\}$	'he is coming to kill' matrix non-past
i-n	á-wá pr-Ø-Ṿ-Ø	'may he kill' wish
i-i	à-wà-gé pr-Ø-Ṿ-gé	'if he kills' condition
	á-wà-gé pr-Ø-Ṿ-gé	'he shouldn't kill' prohibition
n-n	wá Ø-Ø-V-Ø	'kill now!' immediate imperative, 2sg
n-p	wá-gè Ø-Ø-V-gè	'kill now!' immediate imperative, 2pl
n-i	wá-gé (pr)-Ø-Ṿ- $\{gé\}$	'kill anytime!' general imperative 2sg

Chart 5. Denya.

pr- $\emptyset$ -V- $\emptyset$ past pr-lé-V- $\emptyset$ inceptive pr-là-V- $\emptyset$ habitual pr-mà-V- $\emptyset$ iterative ... $\hat{V}_2$ - $\emptyset$ consecutive	pr- $\emptyset$ - $\hat{V}$ -{(né)} relative past	pr- $\emptyset$ - $\hat{V}$ -{(c\`v)} non-past pr- $\emptyset$ - $\hat{V}$ -{(c\`v)} relative non-past
... $\hat{V}_2$ - $\emptyset$ consecutive	pr- $\emptyset$ - $\hat{V}_1$ .... matrix past	pr- $\emptyset$ - $\hat{V}_1$ -{(c\`v)}.... matrix non-past
pr- $\emptyset$ - $\hat{V}$ - $\emptyset$ non-2 imper (wish)		pr- $\emptyset$ - $\hat{V}$ -gé conditional  pr- $\emptyset$ - $\hat{V}$ -gé negative imperative
$\emptyset$ - $\emptyset$ -V- $\emptyset$ 2sg imperative	$\emptyset$ - $\emptyset$ - $\hat{V}$ -gè 2pl imperative	pr- $\emptyset$ - $\hat{V}$ -gé (pr)- $\emptyset$ -V-{(gé)} general imperative

10.6. **Kom.** There is a set of particles that work together in three groups. These are:

nìN ~ N 'past O, habitual (H)'  
sí 'future O' (H)'

These two seem to work together in most cases (sí has not been explored exhaustively).

(ní)nì 'future 1 (F)' recent future  
(nín)là 'future 2 (F)' far away future

The parts in brackets are optional. The verb that follows them has the consecutive form. This suggests that these function similar to the consecutive constructions, i.e. that the future markers function as verbs. (For a construction containing what looks like two consecutive verbs that follow the particle – verb? – ná see the consequence form in the realis-imperfective cell.)

nì 'past 1 (P)' immediate past  
là 'past 2 (P)' recent past  
tí 'past 3 (P)' far away past  
nìnlé 'past 4 (P)' very far away past



These always work together, and separately from the other two (in most cases).

They are treated as a group each in the following. The first group is always symbolized as H, the second group as F, the third group as P. P symbolizes (floating) polar tone. The suffix *-a* of the imperfective stems carries the verb tone: high for high tone verbs, low for low tone verbs. Or it carries the floating H tone that follows the verb. The same goes for the *-v* variant of the same suffix, which is realized as a reduplication of the root vowel or may be amalgamated to the root so that only the tone is seen, in form of a glide when it is dissimilar to the (perturbated) tone on the root. This variant occurs in the middle of constructions, whereas the *-a* variant occurs at the end of sentences.

In the following, the verb *gyi* 'come' and *cú* 'heal' are used. Whenever one form is used in the example, the corresponding form is given in brackets.

r-n	Ngàm	tí	gvì,	wù	cú'	(gvì)	'N <sub>i</sub> came, he <sub>j</sub> healed (him). sequential
			S	V			
	Ngàm	nínlæ	gvĩà,	á	wù	cú'	(gvì) 'N <sub>i</sub> will come and he <sub>j</sub> will heal (him)' sequential
			S	V			
	Ngàm	tí	gvì,	wù	cú'	(gvì)	'N <sub>i</sub> came, and he <sub>j</sub> did heal' P3 assertive consecutive
			S	V			
	Ngàm	tí	gvì,	wù	cú'	(gvì)	láyñ 'N <sub>i</sub> came, and he <sub>j</sub> did Av heal yesterday' P3 assert. consecutive
			S	V			
r-p	Ngàm	tí	gvì	cū'	(gvì)		'N came and healed' consecutive
				L <sub>p</sub> -V			
	Ngàm	tí	cū'	(gvì)			'N healed' past
	S	P3	L <sub>p</sub> -V				
	Ngàm	læ	cù'	(gvì)	láyñ		'N healed today (this morning)' past adverbial
	S	P	L <sub>p</sub> -V		av		
	Ngàm	gvì	gvĩ (cù' cú'í)				'N finished the process of coming' past assertive (answer to question)
	S	L <sub>p</sub> -V	H-V-v-H				
r-i	Ngàm	nínlæ	gvĩà	cū'á	(gvĩ à)		'N will come healing' consecutive
				P <sub>p</sub> -V-a			

	Ngàm	ngvĩa (hcú'á)		'N comes (now, habitual)	
	S	H-H-V-a		habitual (or present)	
	Ngàm	gvĩ (cú'í)	mên...	'N had come, before...'	
	S	H-V-v	mên	anterior	
	Ngàm	nínlæ	gvĩa (cū'á)	'N will come'	
	S	F	P-V-a	future	
	Ngàm	tí nà	cū'á (gvĩa)	'N was healing'	
	S	P nà	P-V-a	past continuative	
	Ngàm	ngvĩ gvĩ	(hcú'í cū'í)	'N is in the process of coming'	
	S	H-H-V-v-H	P-V-v	present progressive	
	..., á	Ngàm	ná gvĩ	gvĩ (cū'í cū'í)	'then N will be coming'
		S	ná P-V-v	P-V-v-H	consequence progressive
i-n	..., á	Ngàm	gvĩ (cú')	'then N comes'	
	á	S	V-H	consequence	
	gvĩ	(cú') cú'		'come and heal!'	
	V-H			imperative matrix	
	ká wà	gvĩ	(cú')	'don't heal'	
	ká wà	V-H		prohibition	
	~	kâ	gvĩ (cú')	'don't heal!'	
		ká-L <sub>p</sub>	V-H	prohibition	
i-p	Ngàm	kæ	cū', (gvĩ)	á...	'if N heals,...(he may)'
	S	kæ	L <sub>p</sub> -V,		realizable condition
	Ngàm	læ	sē cū', (gvĩ)	á...	'when N heals,...(he may)'
	S	P	sē L <sub>p</sub> -V		realizable condition
	Ngàm	bú	(tí) cū' (gvĩ)		'N did not heal'
	S	neg	(P) L <sub>p</sub> -V		negative past
	ká	Ngàm	læ	cū' (gvĩ)	'N should not heal'
	ká	S	H-F/H	L <sub>p</sub> -V	prohibition

i-i	Ngàm S	nà nà	ngvî, H-Ḥ-V-v-Ḷ	(ncú'î)	á...	'if N healed (but he doesn't)' unrealized condition
	Ngàm S	nî H	ncú'î Ḥ-V-v	(gvî) wî wî		'N is not healing' negative present
	N S	læ F	cū'î P̣-V-v	(gvî) wî wî		'N won't heal' refusal
n-n	gvî Ḥ-V	(cú')				'come!' imperative
	gvîã V-a-P̣	(cú''a)				'do come!' insistant imperative
	gvî V-a-P̣	cú''a	(gvîã)			'come and really heal!' insistant imperative consecutive
	ká ká	Ngàm S	gvî V-P̣	(cū')		'N must not heal!' prohibition

# Chart 8. Kom.

<p>..., S V  ~ á S V  sequential  ..., S V ~ S V av  assertive consecutive</p>	<p>..., L<sub>g</sub>-V  consecutive  S P L<sub>g</sub>-V ~ S P L<sub>g</sub>-V av  past  S L<sub>g</sub>-V H<sub>g</sub>-V-v-H<sub>g</sub>  past assertive</p>	<p>..., P<sub>g</sub>-V-a  consecutive  S H-V-a ±av  habitual  S H-V-v mēn  anterior  S F P<sub>g</sub>-V-a ±av  future  S P/H/F nà P<sub>g</sub>-V-a  continuative (P,H,F)  S H H<sub>g</sub>-V-v-H<sub>g</sub> P<sub>g</sub>-V-v  progressive  ...,á S ná P<sub>g</sub>-V-v P<sub>g</sub>-V-v-H<sub>g</sub>  consequence</p>
<p>..., á S V-H<sub>g</sub>  consequence  (S) V-H<sub>g</sub>  imp. matr.    ká wà V-H<sub>g</sub>  ~ ká-L<sub>g</sub> V-H<sub>g</sub>  prohibition</p>	<p>S ká L<sub>g</sub>-V, á...  realizable condition  S P sē L<sub>g</sub>-V, á...  realizable condition  S bú #/P L<sub>g</sub>-V  negative past  ká S H<sub>g</sub>-H/F L<sub>g</sub>-V  prohibition</p>	<p>S nà H H<sub>g</sub>-V-v-L<sub>g</sub>, á...  unrealized condition    S H-H<sub>g</sub>-V-v wì  negative habitual  S F-P<sub>g</sub>-V-v wì  refusal, neg. future</p>
<p>V  imperative  V-a-P<sub>g</sub>  imp. emph.  V-(a)-P<sub>g</sub>  imp. cons.  ká S V-P<sub>g</sub>  prohibition</p>		

## 10.7. Tikar.

Ş stands for subject tone, i.e. a reduplication of the last tone of the subject.

r-n	à	wò'	gwè	'she pounds corn'
	S <sub>1</sub> (L)	Ş-V	O	narrative
	bwí'	wó'	gwè	'we pound corn'
	S <sub>1</sub> (H)	Ş-V	O	narrative



	ǎ S <sub>1</sub> -H	wò' V	kán neg	gwè O	'she did not pound corn' negative narrative	
	bwí' S <sub>1</sub> -H	wò' V	kán neg	gwè O	'we did not pound corn' negative narrative	
r-p	à S <sub>1</sub>	wò-í V-P	gwè O	P(1)	'she pounded corn'	
	bwí' S <sub>1</sub>	wó-í V-P	gwè O	P(1)	'we pounded corn'	
	ǎ S <sub>1</sub> -H	wò-í V-P	kán neg	gwè O	'she did not pound corn' negative P(1)	
	bwí' S <sub>1</sub> -H	wò-í V-P	kán neg	gwè O	'we did not pound corn' negative P(1)	
r-i	à S <sub>1</sub>	tǎ Aux-H	gwè O	wàá V-í	'she is pounding corn' present continuative	
	ǎ S <sub>1</sub> -H	tà Aux	ká neg	gwè O	wàá V-í	'she is not pounding corn' negative pres. cont.
	à S <sub>1</sub>	yě Aux-H	gwè O	wàá V-í	'she will pound corn' future	
i-n	á á	nún S <sub>2</sub>	wò' V	gwè O	'if she pounds corn' realizable condition	
~	nún H-S <sub>2</sub>	wò' V	gwè O		'if she pounds corn' realizable condition	
i-i	à S <sub>1</sub>	kí cond	wó-è V-H-è	gwè O	'if she (had) pounded corn' unrealized condition	
~	ǎ S <sub>1</sub>	wó-è V-H-è	gwè O		'if she (had) pounded corn' unrealized condition	
	á á	nún S <sub>2</sub>	shì neg	gwè O	wàá V-í	'if she doesn't pound corn' negative real. cond.
~	nún H-S <sub>2</sub>	shì neg	gwè O	wàá V-í	'if she doesn't pound corn' neg. real. cond.	

?	nún S <sub>2</sub>	shì-è neg	gwè O	wàá V-ý	'if she hadn't pounded corn' neg. unreal. cond.
n-n	à S <sub>1</sub>	wó' V-H	gwè O		'may she pound corn' desire
	bá neg	à S <sub>1</sub>	wó' V	gwè O	'may she not pound corn' negative desire
n-i	wó' V-ý	gwè O			'pound corn!' imperative

(The surface tone of the verb is subject to change depending upon the tone and the noun class of the following noun.)

à S <sub>1</sub> (L)	bá S <sub>2</sub> -neg	gwè O	wàá V-ý	'she will not pound corn' negative future
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Chart 7. Tikar.

S <sub>1</sub> S <sub>2</sub> -V O narrative	S <sub>1</sub> S <sub>2</sub> -V-í O P1 -é P2 -ka' P3 -â p.res -mé PO	S <sub>1</sub> S <sub>2</sub> -tà-H O V-v cont. bí-H cont. P1 bé-H cont. P2 S <sub>2</sub> -yè-H F1 S <sub>2</sub> -ywimé F2 ká...ká' F3
S <sub>1</sub> -H V kán O neg. narr.	S <sub>1</sub> -H V-í kán O neg. past	S <sub>1</sub> -H tà ká O V-ý neg. continuative
á S <sub>2</sub> V O ~ H-S <sub>2</sub> V O realis. cond.		S <sub>2</sub> kí V-ý-è O ~ S <sub>2</sub> -H V-ý-è O unrealis. cond. á S <sub>2</sub> shì O V-ý ~ H-S <sub>2</sub> shì O V-ý neg. real. cond. (?) S <sub>2</sub> shì-è O V-ý neg. unr. cond.
S <sub>1</sub> V-H O wish bá S <sub>1</sub> V O prohibition		S <sub>1</sub> S-bá O V-ý neg. future V-ý O imperative

#### 10.8. Bangando.

r-p	mí	'élà	'I forgot'
S	V-à		past

	mí	bó	á	'élá	wè	'I'm forgetting'
	S			V-à	O	continuative
r-i	mí	'élí		'I forget habitually'		
	S	V-í		habitual, consecutive		
	mí	á	'élí	'it's me who forgets'		
	S		V-í	focalized		
	mí	'élí	kí	mà	ná	'I'll not forget, I didn't forget
	S	V-í				refusal
i-n	é	mí	'èlě	'if I had forgotten'		
	é	S	V-BH	unrealized condition		
	é	mí	'èlé	nà		'if I hadn't forgotten'
	é	S	V	(polar tone)		neg. unreal. condition
i-p	á	mí	'élá	'if I forget'		
		S	V-á	realizable condition		
i-i	mí	bó	'èlì	'I'll forget'		
	S		V-ì	future		
	mí	'èlì	mà	ná	'I didn't forget'	
	S	V-ì			negative habitual	
n-n	'èlè		'forget!'			
	V-B		imperative			
	à	'èlè		'may he forget!'		
	S	V-B		optative		
	'èlé	mà	ná	'don't forget!'		
	V	(polar	tones)	neg. imperative		
	à	'èlé	mà	ná	'may he not forget!'	
	S	V	(polar	tones)	neg. optative	

Chart 8. Bangando.

	S $\acute{V}$ -à past S bó á V-à+O continuative	S $\acute{V}$ -í habitual, cons. S á $\acute{V}$ -í FOC S $\acute{V}$ -í kí mà ná refusal
(é) S V-B $\grave{H}$ unrealizable cond. SV na neg unrealizable cond.	(á) S $\acute{V}$ -á realizable condition	S bó $\acute{V}$ -ì FUT $\acute{V}$ -ì ma na neg. hab. neg. cons.
V-B $\grave{H}$ imperative S-V-B $\grave{H}$ optative V ma na neg imperative S-V ma na neg optative		

10.9. Mofu.

r-n	ya	kəḍ-ka	‘I beat you’
	pr	Ø-V-O	narrative
	ya	kəḍ-ka	lá ‘I intend to beat you’
	pr	Ø-V-O	Av <sub>1</sub> narrative intentional
r-p	ya	kəḍ-ka	bá ‘I don’t beat you’
	pr	Ø-V-O	neg narrative negative
	ya	ta-kəḍ-ka	lá ‘I have beaten you’
	pr	ta-V-O	Av <sub>1</sub> past
r-i	ya	ma-kəḍ-ka	lá ‘after I beat you...’
	pr	ma-V-O	Av <sub>1</sub> anterior
	ya	fa-kəḍ-ka	‘I am beating you’
	pr	fa- V -O	progressive



ya fada-kəḍ-ka lá 'I'll beat you, am at the point of beating you'  
 pr fada- V -O Av<sub>1</sub> future

i-n kusé a kəḍ-ka 'I want him to beat you'  
 Av<sub>2</sub> pr Ø-V-O wish

dá ya kəḍ-ka kwá 'maybe I beat you'  
 Av<sub>2</sub> pr Ø-V-O Av<sub>2</sub> possibility

i-p dá ya ta-kəḍ-ka lá kwá 'if maybe I have beaten you'  
 Av<sub>2</sub> pr ta-V-O Av<sub>1</sub> Av<sub>2</sub> condition

dá ya ta-kəḍ-ka dáa bá 'if I hadn't beaten you'  
 Av<sub>2</sub> pr ta-V-O Av<sub>1</sub> neg negative condition

i-i dá ya da-kəḍ-ka 'if I will beat you'  
 Av<sub>2</sub> pr da- V -O condition

dá ya fada-kəḍ-ka kwa 'if maybe I'll beat you'  
 Av<sub>2</sub> pr fada-V-O Av<sub>2</sub> condition

n-n kəḍ-a 'beat him!'  
 V-O imperative

a kəḍ-ka dáa bá 'he must not beat you'  
 pr Ø-V-O Av<sub>1</sub> neg prohibition

Chart 9. Mofu.

pr Ø-V ±Av <sub>1</sub> (±bá) narrative	pr ta-V ±Av <sub>1</sub> (±bá) past pr ma-V +Av <sub>1</sub> anterior	pr fa-V ±Av <sub>1</sub> progressive pr fada-V ±Av <sub>1</sub> (±ba) future
+Av <sub>2</sub> pr Ø-V ±Av <sub>1</sub> (±bá) wish dá pr Ø-V(±daa bá) kwá possibility	dá pr ta-V +Av <sub>1</sub> ±kwa condition dá pr ta-V dáa bá neg. condition	±dá pr da-V (±bá) condition ±dá pr fada-V(±daa bá) kwá condition
Ø Ø-V ±Av <sub>1</sub> imperative pr Ø-V ±daa +bá prohibition		

10.10 **Daba.** In Daba a fourth column as well as a fourth row have to be added to make the system complete. These are emphatic forms, which have to be studied as a part of the whole system, an emphatic aspect and an emphatic mood.

The moods are formally distinguished by different sets of pronouns that are used. There appears to be a basic set used for realis mood, with a separated (though fused) marker for irrealis and emphasis. The necessity set seems to be a reduced set. These sets are as follows (unmarked tone is mid):

	realis (rpr)	irrealis (ipr)	necessity (npr)	emphatic (epr)
1	kàtá	tà		kàtá-á
1+1	min	mìne~mì~nì	ní~mí	mìné
1+2	mìn tókón	mìne..tókón	ní..tókón	mìn tókón-á
2	hoh	hà	à	há~hóh-á
2+2	hin	hìne~nì	hí	hìné
3	#~sin	à	màtà~tà	á~sìn-á
3+3	#~sìnígì	à	màtà~tà	á~sìní-á

The following data illustrate the system, using the verbs *biz* 'to farm' and *ri* 'to burn'.

r-n	tà	may,	hoh	ka	bìz	'I want you to farm'	(pr of first clause is irrealis)
			rpr	inf	farm	sequence	
	tà	may	ka	bìz	'I want to farm' (pr of second clause is deleted for same subject)		
			inf	V	consecutive		
r-p	kàtá	rì	'I burned'				
	rpr	L <sub>o</sub> -V	narrative				
	kàtá	tí	bìz	'I farmed, if I farm' (I may)			
	rpr	acc	L <sub>o</sub> -V	accomplished, realizable condition			
r-e	kàtá	tí	bíz	zabà	'I really have already farmed'		
	rpr	acc	H <sub>o</sub> H <sub>o</sub> -V	already	accomplished emphatic		
	kàtá	màtà	bíz	za	'when I farmed...'		
	rpr	when	H <sub>o</sub> H <sub>o</sub> -V	already	temporal clause		
	kàtá	mà	bíz	'I who farmed'			
	rpr	rel	H <sub>o</sub> H <sub>o</sub> -V	subject relative clause			
	vìrèn	kàtá	màtà	ri	'the meat that I burned'		
	meat	rpr	rel	H <sub>o</sub> H <sub>o</sub> -V	non-subject relative clause		

i-n	tà ipr	njà stay	ka inf	bìz V	'I habitually farm' habitual					
	tà ipr	và go	ka inf	rí V	'I will burn' future					
	tà ipr	và go	ka inf	bìz V	kun neg	'I will not farm' negative future				
	tà	njá	tá	kàná	tà ipr	và go	ka inf	rí V	'if I would burn' (I won't) unrealized future condition	
i-p	tà	njá	tá	kàná	tà ipr	rì L <sub>g</sub> -V	'if I had burned' (I didn't) unrealized past condition			
i-i	tà ipr	bìz H <sub>g</sub> -V	'I farm' general truth							
	tà ipr	rì H <sub>g</sub> -V	kun neg	'I don't burn' general negation						
	hí	rí	hìne ipr	bìz H <sub>g</sub> -V	'you pl. burn and farm' 2pl imperative consecutive					
n-n	à	slíd	mà 2sg	bìz V	'get up and farm!' 2sg imperative consecutive					
	à npr	njá stay	ka inf	bìz V	kun neg	'don't farm!' (now or ever) general or specific prohibition				
n-i	à npr	bìz H <sub>g</sub> -V	kun neg	'don't farm now!' specific prohibition						
n-e	à npr	bìz H <sub>g</sub> H <sub>g</sub> -V	'farm!' imperative							
e-e	kàtá-á epr	bìz H <sub>g</sub> H <sub>g</sub> -V	'I farm!' emphatic							

Chart 10. Daba.

	neuter	perfective	imperfective	emphatic
r	...rpr ka V sequence ...ka V consecutive	rpr $\text{L}_\text{v}$ -V narrative rpr tí $\text{L}_\text{v}$ -V acc., real. condition		rpr tí $\text{H}\text{H}_\text{v}$ -V zabà emph. acc. rpr màtà $\text{H}\text{H}_\text{v}$ -V za temp. clause rpr mà $\text{H}\text{H}_\text{v}$ -V S rel. clause rpr màtà $\text{H}\text{H}_\text{v}$ -V non-S rel.cl.
i	ipr njà ka V habitual ipr và ka V future ipr và ka V kun negative future tà njá tá kàrà ipr và ka V unreal. cond. F	tà njá tá kàrà ipr $\text{L}_\text{v}$ -V unreal.cond.P	ipr $\text{H}_\text{v}$ -V general truth ...ipr $\text{H}_\text{v}$ -V sequential ipr $\text{H}_\text{v}$ -V kun neg.gen.truth	
n	...ma V imp. cons. 2sg npr njà ka V kun general or spec. prohibition		npr $\text{H}_\text{v}$ -V kun specific prohibition	npr $\text{H}\text{H}_\text{v}$ -V imperative
e				epr $\text{H}\text{H}_\text{v}$ -V emphatic

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