The Prominence of Tense, Aspect and Mood

D.N.S. Bhat

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Preface

This is a revised and enlarged version of a report that I submitted to the University Grants Commission, New Delhi, in 1994. The report, entitled *Tense, Aspect and Mood in Indian Languages*, was restricted to languages that are prevalent in India. An invitation from Prof. Johan van der Auwera to spend six months in Antwerp, Belgium as a Visiting Scholar in 1997 allowed me to expand its scope and to cover languages spoken outside India. I was also able to gather facts on several additional languages with the help of books and journals that were available at the Antwerp University Library, and also in Prof. van der Auwera's personal collection.

I had ventured to establish a typology of languages, based upon the relative prominence of tense, aspect and mood, in my earlier report itself, but I was not very sure whether this typology could be extended to languages spoken outside India. The main problem was getting access to grammars of at least some representative languages. Antwerp University provided this opportunity for me. Thanks to an invitation from Prof. Frans Plank, I was also able to spend a week in Konstanz (I wish I had more time to study in the enormous library of Konstanz University!), and discover some additional data that supported the typology. I was also able to present these ideas to linguists in the University of Konstanz and also in the Amsterdam University. I am thankful to all these linguists for their comments and helpful suggestions.

The present study may be considered as using a functional-typological approach, as it attempts to establish generalizations regarding a particular grammatical feature (verbal category) on the basis of a functional perspective. It is also basically a "differentiating" approach, in the sense that it tries to find out ways in which languages differ from one another in their use of a given grammatical feature. Typological studies have been generally based upon the universalistic approach. That is, they have been attempting to find generalizations that are applicable to all languages. Even while dealing with features that

are applicable to only some languages, the commonly used approach is to establish statements (called "implications") which could cover all languages. Differentiating approach is an alternative, and according to me, a more exciting, way of establishing typological generalizations about language.

I have received help from several persons while preparing this monograph. The Central Institute of Indian Languages has probably the best library for linguistics in India. I have always found the staff members of this Library most helpful. I have also received generous help from the former Director, Prof. Annamalai, and the present Acting Director, Prof. Ramaswami. I wish to acknowledge my indebtedness to all these people, and also to the linguists of the Institute with whom I was able discuss topics connected with my study.

I prepared the revised, final draft of this monograph in Antwerp University. I wish to acknowledge my indebtedness to Prof. Johan van der Auwera, and also to the Research Council, and to the India Study Centre, of Antwerp University for supporting this work.

D. N. S. Bhat

List of Abbreviations

1	first person	INSTR	instrumental
2	second person	INTR	intransitive
3	third person	LOC	locative
ABL	ablative	MASC	masculine
ABS	absolutive	NEUT	neuter
ACC	accusative	NEG	negative
AUX	auxiliary	NON.FUT	non-future
COND	conditional	NOM	nominative
CONTF	counterfactual	NON.PAST	non-past
DAT	dative	OBJ	object
DEF	definite	PART	participle
DIR	direct case	PERF	perfective
DS	different subject	PL	plural
DUR	durative	POST	posterior
EMPH	emphatic	POT	potential
ERG	ergative	PRED	predicate
FEM	feminine	PRES	present
FUT	future	PROG	progressive
GEN	genitive	PROP	propriative
HAB	habitual	Q	question
HON	honorific	REL	relative
IMP	imperative	SG	singular
IMPERF	imperfective	SIMUL	simultaneous
INF	infinitive	SUB	subject

CHAPTER 1

Introduction

1.1   Universalistic and Differentiating Approaches

There are two different ways in which one can carry out typological research on language. We may call these Universalistic and Differentiating. It would be more correct, perhaps, to regard the former as a Language Universal study and to restrict the term typology to the latter. Because, as we can see from the following, languages are viewed as forming different "types" only in the latter type of study. Further, the latter type of study, even though regarded as part of the study of Language Universals, is more restrictive in its scope. It generally allows some languages to remain outside the types of languages that it establishes.

In the case of the "Universalistic" approach, a researcher tries to establish grammatical elements, processes and strategies, general principles and constraints, which are applicable to *all* natural languages. For example, the claims about grammatical relations like subject and direct object, or the more basic relations called A, S and O, claims about the centrality of transitivity or the universality of word-class distinctions like nouns and verbs, claims about hierarchies of different kinds such as the accessibility hierarchy of noun phrases for relativization or reflexivization, claims about the universality of semantic distinctions like objects, events and properties, and so on are of this type. They are Universalistic in the sense that linguists consider them to be applicable to all natural languages.

In the case of the "Differentiating" approach, on the other hand, attempts are made to divide languages into two or more different types on the basis of the various contrasting characteristics that are shown by them and to find explanations for those characteristics. The division of languages into isolating, agglutinative and synthetic (or into analytic and synthetic) is probably the earliest study of this nature. Word order based divisions of languages into SOV, SVO and VSO and into configurational and non-configurational are also studies of the

same type. The occurrence of differences in case-marking and verbal agreement has given rise to another division of languages into accusatives and ergatives (and also into actives — i.e. languages that are neither accusatives nor ergatives). Similarly, the study of adjectives has given rise to a classification of languages into those in which property words occur as a distinct category of adjectives on the one hand, and the ones in which they merge with nouns, verbs or both on the other. All such studies deal with certain strategies of sentence structure in the case of which languages are perceived as making alternative choices instead of using one and the same strategy.

It is evident that the two types of studies can complement one another. The generalisations put forth by the Universalistic approach forms the starting point for the Differentiating one as it tries to find strategies at a deeper or more fundamental level that can allow alternative choices at the higher level. Further, cross-linguistic studies can only be based upon language-universal elements and concepts which the Universalistic approach tries to define and codify, and hence the Differentiating approach can only build upon the foundation that the Universalistic approach constructs. In the actual practice, however, the two approaches conflict with one another, since the Differentiating approach has the effect of casting doubts upon the generalisations and conclusions that have been established painfully by the Universalistic approach. For example, the division of languages into configurational and non-configurational has made it necessary to discard some of the Universalistic claims about the structure of sentences, like subjacency and movement. The division of languages into active and non-active has cast doubts upon certain other Universalistic claims such as the centrality of transitivity and the universality of the notion of subject. The division based upon the occurrence of word-class distinctions has cast doubts upon the universality of word-class distinctions themselves and also upon other claims like the one which underlies x-bar theory.

It is apparently in this sense that Stassen (1985: 4) found the Differentiating approach to have come up with "some of the more exciting results" of typological study. These results have been exciting because they tried to disconfirm some of the familiar and long-standing notions and assumptions. It is rather unfortunate, however, that the general tendency of the Universalist, when confronted by such findings of the Differentiating approach, is to stick to his claims at any cost, even to the extent of making the claims unfalsifiable. For example, grammatical relations like Subject and Direct Object have been postulated for languages like English because of the fact that the relation between

case markers and semantic relations is too complex in these languages to describe through a direct linkage between the two. The question that needs to be raised here is therefore whether such a complexity in the relationship between case markers and semantic relations exists in all languages such that the postulation of abstract grammatical relations is necessary for all of them. It was apparently assumed that this would be the case, but when it was shown that in the case of some languages the use of such abstract relations would only make the description unnecessarily complex and also less explanatory (for example, see Bhat 1991), many of the Universalists did not give up their claim as one would have expected, but instead, persisted with it. Their contention has been that certain marginal cases of morphosyntax do occur in these latter languages as well, in which the relation between case markers and semantic relations is not direct.

Notice, however, that arguments of this type, if perused further, can lead to other alternative possibilities that may not be very welcome. For example, it is possible to claim, on the basis of these latter type of languages, that the relation between case markers and semantic relations is direct in *all* languages. Even in the case of languages like English, in which it is indirect in most of the contexts, there do occur instances in which it can be shown to be direct. Pursuing this line of thought would, no doubt, make the grammar of languages like English very complex, but this would be in no way different from the complexity that has been imposed upon the grammars of other languages by the assumption that grammatical relations may be established for *all* languages. The crucial point, I think, is that languages do show a basic difference on this point. The difference may be graded with some showing a greater degree of direct linkage than others, but when languages belonging to the two extreme ends of this gradation are compared, it becomes evident that the difference cannot be neglected.

The fate of noun-verb distinction is similar to that of grammatical relations discussed above. The crucial question that needs to be examined here is whether there is a *categorial* distinction between nouns and verbs in all languages. It is not sufficient if one finds, in all languages, syntactic or semantic distinctions of one type or the other that can be correlated with the familiar noun-verb distinction, because in spite of the occurrence of such distinctions between, for example, active and stative verbs, or between animate and inanimate nouns, we do not regard them as categorial in the languages concerned. The distinctions must have a fundamental place in the functioning of all languages in order to claim that they are categorial distinctions in all of them. This crucial point is generally missed by the Universalists who try to maintain their claim about the

universality of noun-verb distinction in spite of the adverse findings of the Differentiating approach.

There are, on the other hand, some contexts in which the conflict between the Universalistic and Differentiating approaches appears to be unresolvable. For example, there are languages, like Sanskrit, in which adjectives are not differentiated from nouns. Can we claim, in the case of such languages, that there would still be a *semantic* distinction between objects and properties? The Universalistic approach would apparently assume that we can, in spite of the absence of any formal distinction between the two, whereas the Differentiating approach would lead us to the conclusion that we cannot make any such claims. It is true that persons who use such a language may, for various reasons (like exposure to a language which does make an adjective-noun distinction), become aware of that distinction and also of the problem of expressing it in the language concerned, but the language as such will have to be regarded as devoid of that distinction. In Sanskrit, for example, the exponents of New Logic (*navya-nya:ya*) found it necessary to develop an extremely complex style of writing in order to express the distinction between objects and their properties, a fact which may support the claim of the Differentiating approach; however, since these logicians did succeed, at the end, to come up with a set of expressions "in the Sanskrit language" for this purpose, the Universalist can also persist with his claim.

Another interesting point about this "contest" between the Universalistic and Differentiating approaches is that it is being carried out, unfortunately, with rather unequal terms, which are highly favourable for the former and are distinctly unfavourable for the latter. Both of them have to depend upon published grammars, whose authors generally assume, either consciously or unconsciously, several familiar concepts, categories and strategies to be occurring in all languages. This is actually the way in which we, as human beings, respond to our environment; when exposed to a strange situation, we try to understand it in terms of familiar elements and processes. Similarly, when exposed to a "strange" language, we, as linguists, try to find equivalents to familiar elements like nouns, verbs and adjectives, subjects and objects, tenses and aspects, and familiar processes like causativization, reflexivization, complementation, agreement, case-marking, and so on. It is only when the language under consideration utterly fails to provide equivalents to these familiar elements and processes that we look for alternative elements and processes for describing that language.

In view of this general human tendency which affects our descriptions of grammars to a great extent, a typologist has to be careful in accepting statements

about similarities between familiar and non-familiar languages. He should give greater importance to differences that have been noticed, because these have been consciously observed and recorded; the similarities, on the other hand, might have been simply assumed rather than enquired into. For example, the relevance of grammatical relations for the description of languages like Kannada and Manipuri were only assumed by earlier scholars. Some doubts were raised regarding this assumption when the languages did not show complete similarity with familiar languages, as for example, in the case of the so-called dative-subject sentences in Kannada, and the use of nominative suffix in Manipuri. However, when examined in detail, the assumption itself turned out to be untenable (see Bhat 1991). Similarly, the notion of transitivity was assumed to be efficient for the description of Hindi causatives, or of distinctions in the forms of Tamil verbal stems, by earlier scholars. But when detailed studies of these topics were undertaken, it was found that an entirely different notion, namely affectivity, was actually needed for that purpose (see Saksena 1982 on Hindi, and Paramasivam 1979 on Tamil).

The Universalistic approach tends to give greater importance to features which occur in the vast majority of languages, with the ones that are restricted to a few isolated languages being put aside as "unexplained" exceptions, or as cases that need to be accounted for. This is much the same as regarding them as irrelevant because when the Universalist's generalisations are being referred to by other authors, these exceptional cases generally tend to be left out and forgotten. The Differentiating approach, on the other hand, is in a position to provide prominence to such features by establishing additional language types. The establishment of such language types can help to overcome the masking effect of familiar language types mentioned above because, in some cases at least, it can lead to a re-examination of the existing descriptions (grammars) of languages.

As I had suggested earlier, the sets of language types that a typologist establishes under the Differentiating approach need not necessarily be a language-universal one. Its emphasis is upon the *differences* that occur between sets of languages. It tries to find correlatable characteristics among such differences, which may ultimately lead to interesting explanations, as one of these correlatable differences may turn out to be more fundamental than the remaining differences, and may therefore be viewed as "causing" those differences. The study may, however, be restricted to a particular area, as for example, in the case of the Eurotype study, and the groupings that it establishes may or may not be extendable to other areas (see van der Auwera, forthcoming). The advantage of

such a restrictive typological study is that the data being more limited and the languages being better known to the linguist concerned, the topic would be more manageable. Correlations that would be missed by a wider type of study would be more readily recognised by a restrictive study. This advantage offsets the disadvantage of some of the conclusions turning out to be relevant only for the region under study.

It is possible to use both the Universalistic as well as the Differentiating type of approaches in our typological study of verbal categories like tense, aspect and mood. Languages manifest an enormous amount of variation in their encoding and use of these verbal categories; a Universalistic approach would try to find common elements and tendencies that occur at the base of these variations. Dahl's (1985) attempt to establish a universal set of basic elements from which languages make a selection and Bybee's (1985) and Bybee, Perkins and Pagliuca's (1994) attempt to establish universal paths along which such elements evolve and get established as grammatical elements in different languages can be regarded as primarily involving such an approach. A Differentiating approach, on the other hand, would try to find a basis for the variations by establishing idealised language types such that sets of correlatable distinctions can be associated with each language type. Individual languages can then be assigned to one or the other of these idealised language types.

In the case of verbal categories, however, variations appear to occur along different dimensions. It might therefore be necessary, for the time being at least, to establish different sets of idealised language types with each set accounting for a particular dimension. For example, we find variations occurring along the dimension of grammaticalization with some languages grammaticalizing the verbal categories to a very high degree, some showing practically no grammaticalization whatsoever, and others showing grammaticalization to different degrees along this dimension. This variation can form the basis of a typology of languages into isolating and synthetic (or inflectional). We also find variations occurring in the actual types of categories that are grammaticalized, with some languages grammaticalizing only one or the other of the three major categories, namely tense, aspect and mood. The two dimensions cut across one another and therefore the typology that can be established on the basis of this latter dimension would not be the same as the former typology.

1.2 Nature of the present study

The present monograph makes use of the second dimension mentioned above in order to establish a typology of languages for the study of verbal categories. Its emphasis is upon the differences that occur among languages in their encoding of verbal categories. It is based upon a typological study, carried out earlier, of the verbal categories occurring in the languages of India (Bhat 1994b). During the course of that study, it was discovered that a classification of languages on the basis of the *prominence* that the languages attach to tense, aspect and mood could lead to certain interesting generalizations. Most importantly, it was found that languages that give greater prominence to one of these categories appeared to view concepts belonging to the other two categories in terms of their prominent category. For example, mood-prominent languages appeared to view temporal and aspectual notions in terms of the modal category, whereas aspect-prominent and tense-prominent languages appeared to view modal (and other) notions in terms of the category of aspect and tense respectively.

Consider, for example, the notion of perfect, which is generally described as a "past event with present relevance". This is apparently a temporal way of viewing this concept. There are languages like Mao Naga in which the category of mood is more prominent than tense or aspect. In such languages, perfect (i.e. the verbal form that translates as perfect in English) represents something rather different: it denotes a realis event about which something more needs to be done. That is, instead of combining the notion of past with present, these languages join together the notion of realis with that of irrealis in order to establish a concept that is comparable to the perfect of English. Aspect-prominent languages, on the other hand, appear to view this notion from an aspectual point of view, i.e. as involving a combination of perfective with imperfective.

In order to bring out correlatable differences of the above type that occur among languages, it is apparently useful to classify languages into tense-prominent, aspect-prominent and mood-prominent types. However, natural languages show a lot of variation among themselves concerning the degree of prominence that they attach to one or the other of these categories. For example, among the languages that give greater prominence to mood than to tense or aspect, some use the modal category almost exclusively in their verbal system, leading to the contention that they are "tenseless" (or "aspectless"). Others, however, provide some representations to tense and aspect as well, even though the category of mood continues to be the most prominent one among them. The existence of

such cross-linguistic variations makes it rather difficult to characterise the three language-types directly on the basis of such varying languages.

In order to overcome this problem, we may resort to the notion of "idealised languages". We can assign sets of characteristics to these idealised languages such that they are maximally different from one another; we can then group the actual languages under one or the other of these idealised languages depending upon the kind of similarity that they show in sharing characteristics with them. Such a classification is helpful in that it provides us with a basis for making further inquiry regarding characteristics that languages share when grouped under a single language type and the ones that the languages do not share when they are grouped in different types.

1.3   Organisation of the monograph

I have organised the present monograph into two different parts, of which the first one provides a detailed description of the three verbal categories of tense, aspect and mood, and the second one establishes a typology of languages based upon their representation of these three categories. It can be claimed that the three categories are quite distinct from one another, even though there do occur interconnections between them. We can describe tense as indicating the location of an event on a linear time scale (as before, simultaneously or after a particular reference point which may be deictic or non-deictic), aspect as denoting the temporal structure of the event (as complete or on-going, beginning or ending, occurring once or several times, etc.) and mood as denoting the actuality of the event (as real or not real, seen, heard, or inferred, possible, probable or certain, necessary or unnecessary, etc.). Since these three categories denote different facets of one and the same event, there is the possibility, mentioned above, of giving prominence to one of them, and viewing the others in terms of that category.

In order to emphasise the differences that occur between these three categories, I have described them separately in three different chapters. The general tendency among grammarians is to club them together (especially the categories of tense and aspect) apparently because the language that they describe do not allow them to make sharp and clear-cut distinctions between them. However, as I point out in the following chapters, the categories them-selves are not indistinguishable. It is quite possible to establish an idealised situation in which the three are quite different from one another. Individual

languages can be viewed as representing one or the other of these categories in detail and others through indirect means. Such an idealised differentiation between tense, aspect and mood has the effect of making our description of these categories less complicated and therefore less confusing. For example, as I point out in the second chapter (see 2.6), the failure to differentiate between tense and aspect (i.e. between temporal location and temporal structure) has made the description of tense, provided by some linguists, to be extremely complex. Further complexity has been added to these descriptions by the failure of these linguists to differentiate between information provided by temporal (and also aspectual) adverbials on the one hand and tense markers on the other. The two are also quite different from one another, even though they replicate one another to a certain extent.

In the second part of this monograph, I establish a typology of languages on the basis of the prominence that languages give to tense, aspect or mood. That is, I assume that the three categories form the basis for three different language types, namely tense-prominent, aspect-prominent and mood-prominent. Ideally, the category that has been chosen as the most prominent one would be the only category that gets grammaticalized; concepts belonging to the other two categories would be viewed as different facets of this chosen category. Actual languages that can be assigned to these idealised language types, however, show a gradation, with some being closer to one of the idealised types than others. I will try to show how these actual (natural) languages exemplify the language type by placing greater prominence to one of the categories as compared to others. This classification would be justified in a following chapter by showing how languages belonging to one or the other of these different language types share several other characteristics which are apparently derivable from the fact that they give prominence to one or the other of these three categories.

PART I

A Descriptive Study

CHAPTER 2

Category of Tense

2.1 Introduction

Tense is an inflectional marker of the verb used for denoting the *temporal location* of an event (or situation). Since time itself does not have any distinguishable marks on it, tense has to make use of some other event which occurs before, simultaneously or after the event under consideration as the reference point for indicating its temporal location. Languages differentiate between two main types of events that they use as reference points in this fashion; the event of *uttering* the sentence in which the tensed verb occurs is one of them; the second one is any other type of event. Consider, for example, the following Kannada sentences:

> (1) a. *naːnu manege hoː-d-e*
>   I   home   go-PAST-1SG
>   'I went home'
>
>   b. *naːnu manege hoːg-i   malagi-d-e*
>   I   home   go-PRIOR lie-PAST-1SG
>   'Having gone home, I lied down'

Notice that in (1a), the event of *going* has the event of *uttering* that sentence as its reference point (it occurred before the point of time at which that sentence was uttered by the speaker) whereas in (1b), it has the event of *lying down* as its reference point (*going* occurred before *lying down*). It is possible for this latter reference point to be past as in (1b) or future (non-past) as in (1c), given below, but the former reference point (utterance time) can only be present.

> (1) c. *naːnu manege hoːg-i   malagu-tt-eːne*
>   I   home   go-PRIOR lie-NON.PAST-1SG
>   'Having gone home, I will lie down'

We may use the terms "deictic" and "non-deictic" in order to differentiate between (i) tenses which have the utterance time as the reference point and (ii) the ones which have some other event as the reference point, respectively. Traditionally, these are called "absolute" and "relative" tenses (cf. Comrie 1985: 36) but the difference between the two does not depend upon one of them being relative and the other one non-relative (or absolute); both are relative to a reference point; the difference between the two is only that the former uses a *deictic* event (an event which is connected with the speech act) as the reference point whereas the latter uses some other event for that purpose. As I will be pointing out later, this deictic/non-deictic distinction plays an important role in the case of aspect and mood as well.

In addition to this distinction (i) regarding the kind of reference point used (deictic versus non-deictic), and (ii) regarding the position of the event with reference to that reference point (before, simultaneously or after it), the category of tense also makes use of the notion of relative distance from the reference point as a parameter of differentiation. Consider, for example, the following verbal forms of Nkore-Kiga, a Bantu language of South-Western Uganda, in which there is a three-fold distinction of temporal distance in the past tense, with today past and remote past being represented by the suffixes *aa* and *ka* respectively and yesterday past being represented by a modification of the verbal stem (Taylor 1985):

(2)   a.   *n-aa-gyenda*
              I-today:PAST-go
              'I went today'

       b.   *n-gyenzire*
              I-went (yesterday)
              'I went yesterday'

       c.   *n-ka-gyenda*
              I-REMOTE-go
              'I went earlier than yesterday'

Nkore-Kiga also makes a two-fold distinction of temporal distance in the future tense. It also has an additional present tense form, and an unmarked form of the verb (called universal tense) which is used for denoting permanent or habitual events or states, but it shows distinctions of temporal distance only in the case of past and future tenses (Taylor 1985).

The category of tense provides only a skeletal view of the temporal location

of a given event. Additional information regarding its temporal location is provided by temporal adverbials that occur, optionally, as modifiers of the verb in the sentences concerned. These adverbials replicate tense by establishing a parallel temporal structure, which, however, is generally related to the one established by tense. The adverbials also make use of the same set of parameters that are used by tense, but they may use certain additional parameters as well. Even while using the former parameters, they are able to provide more detail than tense about the temporal location of the event.

Languages may use different types of devices for representing the temporal location of events. The occurrence of tense markers is only one of them. For example, there can be 'tenseless' languages, i.e. languages in which the notion of temporal location does not get grammaticalized. In these languages, the notion is represented rather indirectly by aspectual or modal distinctions. It is also possible to have tense distinctions occurring in the auxiliary verb only and not in the main verb, or in the temporal adverbials only and not in the verbal system. For example, distinctions of temporal distance are represented by temporal adverbials rather than by tense markers in English, as shown by the translations of (2a–c) given above.

2.2 Deictic tense

There can be a three-fold distinction in the case of deictic tense, namely between past, present and future, depending upon whether the event under consideration occurs before, simultaneously or after the time of uttering the sentence through which the event is being described. Consider, for example, the following three Kurukh (Dravidian) sentences:

(3)   a.   *eːn ij-d-an*
            I   stand-PRES-1SG
            'I stand'
       b.   *eːn ij-k-an*
            I   stand-PAST-1SG
            'I stood'
       c.   *eːn ijʔ-on*
            I   stand-(FUT)-1SG
            'I will stand'

The tense markers occurring in the verbal forms of these sentences have the function of indicating the temporal location of the event of *standing*. According to (3a), this event is simultaneous with the time at which that sentence was uttered, whereas it is prior to the utterance time in (3b); and according to (3c), it is later than the time at which that sentence was uttered.

Notice that there is always a need to have some other event that functions as the reference point in order to specify the location in time of a given event. This is because, as I have mentioned earlier, time itself does not contain any distinguishable area or point with reference to which an event can be stated as occurring before, simultaneously or after that point. However, deictic tenses differ from non-deictic tenses in that their reference point (utterance time) is generally considered to be the unmarked one and hence it need not be specified in the sentence; only the reference point of non-deictic tenses needs to be specified. Hence, when no reference point is specified in a given sentence, it is generally assumed that the reference point is the utterance time. For example, in all the sentences given above (3a–c), the act of uttering the sentence under consideration functions as the reference point even though none has been specified in any of them.

It would be useful to differentiate between deictic and non-deictic tenses by using distinct sets of terms for denoting them. I propose to use the traditional terms, past, present and future, and also the ones that I would be introducing later for two different combinations of these, namely non-past (future and present) and non-future (past and present), for referring to deictic tenses, and the terms prior, simultaneous and posterior for referring to non-deictic tenses. There are several interesting differences between these two types of tenses, and the use of distinct sets of terms for representing them would be helpful in avoiding confusions in their description.

2.2.1   *Constraint on present tense*

The fact that an event can be thought of as occurring before, simultaneously, or after the point of time at which a speaker is uttering a sentence which describes it, makes it possible for us to think of three different deictic tenses, namely past, present and future. The three Kurukh sentences given above (3a–c) exemplify the occurrence of this three-fold deictic tense distinction. There is, however, an interesting constraint in the use of present tense, namely that an event which is simultaneous to utterance time needs to be durative or progressive, or habitual

(see Bennett and Partee 1978: 13). This constraint apparently results from the fact that a speaker needs some amount of time for producing his statement about an observed event, and hence, by the time he has produced his statement, the observed non-durative or non-habitual event would have turned out to be a "past" event. Thus in Kurukh, the verb in present tense given above (3a) represents mainly a habitual event.

Another way that has been used by languages to resolve this problem is to have only a two-fold tense distinction; this may be between past and non-past, as in English, Kannada, and several other familiar languages, or between future and non-future as in Manipuri (Tibeto-Burman) and several other languages. The notion of present tense gets combined with future in the former case and with past in the latter case. The latter system, however, appears to have developed from an earlier modal system involving a distinction between realis and irrealis moods; that is, the so-called non-future represents basically the realis mood.

The following Kannada sentences exemplify the use of the first alternative mentioned above:

(4) a. *avanu manege hoː-d-a*
    he home go-PAST-3MASC:SG
    'He went home'

  b. *avanu manege hoːgu-tt-aːne*
    he home go-NON.PAST-3MASC:SG
    (i) 'He goes home (habitual)'
    (ii) 'He will go home'

  c. *avanu manege hoːgu-ttaː id-d-aːne*
    he home-DAT go-SIMUL be-PRES-3MASC:SG
    'He is (in the process of) going home'

Notice that the verb *hoːgu* 'to go' shows only a two-fold deictic tense distinction (past versus non-past), as seen in (4a) and (4b); this is true of all other verbs in Kannada, excepting *iru* 'to be' (see below); (4c), used for denoting the present tense meaning, involves a periphrastic construction, in which the main verb occurs in the non-deictic simultaneous tense (which also has a durative or progressive meaning in this usage), and the verb *iru* 'to be' occurs in the deictic present tense. The verb *iru* 'to be' is exceptional in showing a three-fold (past-present-future) deictic tense; this has apparently been facilitated by the fact that *iru* 'to be' is a stative verb.

The verb *iru* 'to be' shows this three-fold deictic tense distinction while

indicating the location of objects and characteristics (see 5a–c below) also, but when used for denoting the location of events, it only shows a two-fold past/non-past deictic tense distinction (see 6a–c):

(5)   a.   *avanu illi   id-d-a*
            he   here be-PAST-3MASC:SG
            'He was here (when I came)'

      b.   *avanu illi   id-d-aːne*
            he   here be-PRES-3MASC:SG
            'He is here (now)'

      c.   *avanu illi   iru-tt-aːne*
            he   here be-FUT-3MASC:SG
            (i) 'He will be here (when you come)'
            (ii) 'He is (usually) here'

(6)   a.   *ivattu ondu sabhe   it-t-u*
            today one   meeting be-PAST-3NEUT:SG
            'There was a meeting today'

      b.   *ivattu ondu sabhe   i-d-e*
            today one   meeting be-NON.PAST-3NEUT:SG
            (i) 'There is a meeting today'
            (ii) 'There will be a meeting today'

      c.   *ivattu sabhe   iru-tt-ade*
            today meeting be-HAB-3NEUT:SG
            'There is (usually) a meeting today (say, on Mondays)'

Notice that (5c) is ambiguous between future and habitual meanings whereas (6c) has only the habitual meaning; (6b), on the other hand, has both present and future (but not habitual) meanings (i.e. it denotes the non-past tense). The point to be noted here is that events are generally viewed as momentary (or rather are unspecified for duration) in Kannada and hence they can only occur in past or non-past tenses. Verbs require the simultaneous suffix (which also has the progressive meaning associated with it) to be attached to them in order to indicate events as non-momentary.

    The use of a future/non-future distinction, instead of this past/non-past distinction, can be exemplified with the help of the following sentences of Manipuri, a Tibeto-Burman language. This language has two different tense forms, derived by adding the suffix *li* 'non-future' and *kəni* 'future' to the verb; the non-future form has past and present habitual meanings in the case of verbs

denoting an event, and past and present (also present habitual) meanings in the case of verbs denoting a state; verbs denoting an event have an additional form, derived by adding the suffix *lì* 'durative' for denoting the present meaning. Examples:

(i)   Verbs denoting an event:

    (7)   a.   *məhak ciŋ-də   cət-li*
                    he   hill-LOC go-NON.FUT
                    (i) 'He went to the hill'
                    (ii) 'He usually goes to the hill'

            b.   *məhak ciŋ-də   cət-lì*
                    he   hill-LOC go-DUR
                    'He is going to the hill'

            c.   *məhak ciŋ-də   cət-kəni*
                    he   hill-LOC go-FUT
                    'He will go to the hill'

(ii)   Verbs denoting states:

    (8)   a.   *ŋəsi   noŋ məŋ-ŋi*
                    today rain cloudy-NON.FUT
                    'It is cloudy today'

            b.   *ŋəraŋ   noŋ məŋ-ŋi*
                    yesterday rain cloudy-NON.FUT
                    'It was cloudy yesterday'

            c.   *julay-də noŋ məŋ-ŋi*
                    July-LOC rain cloudy-NON.FUT
                    'It is generally cloudy in July'

            d.   *nuŋdaŋwayrəmdə noŋ məŋ-gəni*
                    evening(LOC)   rain cloudy-FUT
                    'It will be cloudy in the evening'

Notice that the non-future suffix has the past and habitual meanings in (7) and also the present meaning in (8); the future suffix, on the other hand, has only the future meaning in both these cases.

    Several other Tibeto-Burman languages are similar to Manipuri in showing a future/non-future tense distinction, but in some of them at least the distinction needs to be regarded as primarily one of mood (i.e. between realis and irrealis) rather than that of tense. As I point out later (see 4.2.1) Mao Naga has basically

a modal distinction of this type with the so-called past (realis) forms being used even for denoting future events (see also 9.4.2).

2.3   Non-deictic tense

Tense suffixes can also indicate the temporal location of an event by using some other event as the reference point, and in such cases, we may regard them as non-deictic. As in the case of deictic tenses, this non-deictic temporal location can also be before, simultaneous with or after the event that has been chosen as the reference point. As I have suggested earlier, we may use a different set of terms, namely prior, simultaneous and posterior for denoting these three non-deictic tenses. These can be exemplified with the help of the three converbs that occur in Kannada, as shown in the following sentences:

(9)   a.   *na:nu haNN-annu be:yis-i   kattaris-id-e*
           I   fruit-ACC   cook-PRIOR cut-PAST-1SG
           'I cut the fruit after cooking it'
      b.   *na:nu haNN-annu be:yisu-tta: kattaris-id-e*
           I   fruit-ACC   cook-SIMUL cut-PAST-1SG
           'I cut the fruit while cooking it'
      c.   *na:nu haNN-annu be:yis-alu kattaris-id-e*
           I   fruit-ACC cook-POST cut-PAST-1SG
           'I cut the fruit for cooking (it) later'

The verb *be:yisu* 'to cook' occurs in its three different converbal forms in the sentences given above, and the temporal location of the event of cooking is indicated in these sentences as being before (9a), simultaneous with (9b) and after the event of cutting, with the latter event functioning as its reference point.

     Non-deictic tenses are different from deictic tenses in that the reference point must necessarily be specified in the sentence itself. This is apparently facilitated by the fact that verbs that show this non-deictic tense generally occur in their non-finite form; they occur in a subordinate clause which is dependent upon the clause that denotes the event which functions as its reference point. Notice, however, that this constraint affects only the non-deictic tense. Deictic tenses can be represented by both finite as well as non-finite verbal forms. For example, relative participles occurring in Dravidian languages can have deictic

tenses, but they are non-finite in form. They are, however, subordinated to nouns and not to verbs or clauses. The following Tamil clauses illustrate this point:

(10) a. *uLLe iru-kkira tiruTaṉ*
inside be-NON.PAST thief
'the thief who is inside'

b. *uLLe iru-nta tiruTaṉ*
inside be-PAST thief
'the thief who was inside'

Notice that the two relative participles occurring in (10a) and (10b) represent non-past and past deictic tenses respectively.

Verbal forms occurring in counterfactual conditionals are also in a subordinated form, but they denote deictic (past) tense, as can be seen from the following Tamil example:

(11) *avaṉ iŋke va-ntu iru-nt-aːl*
he here come-PRIOR be-PAST-COND
'if he had come here…'

Events in non-deictic tenses can also have non-tensed events as their reference points; i.e., non-deictic tenses need not necessarily be related to deictic tense forms, as has been suggested by some linguists (see Enc 1987). The following Kannada sentences exemplify this point:

(12) a. *kuDi-du baruv-avri-ge kelasa illa*
drink-PRIOR come-them-DAT work not
'There is no work for those who come after drinking'

b. *kuDiyu-ttaː baruva-avari-ge kelasa illa*
drink-SIMUL come-them-DAT work not
'There is no work for those who come drinking'

c. *kuDiy-alu baruv-avari-ge kelasa illa*
drink-POST come-them-DAT work not
'There is no work for those who come for drinking'

Notice that the relative participle *baruva* 'coming' occurring in these sentences can have a habitual interpretation, and in such a usage, it does not represent any deictic tense. The verbal participles of the root *kuDi* 'drink' occurring before it in different non-deictic tenses (prior, simultaneous and posterior respectively) are therefore unrelated to any deictic tense.

The claim that the habitual is not in any deictic tense in the sentences given above is supported by the fact that it can occur in a matrix clause that contains a past tense verb as well. Example:

(13)   *kuDi-du   baruv-avari-ge   kelasa iral-illa*
       eat-PRIOR come-them-DAT work   was-not
       'There was no work for those who (used to) come after drinking'

Another interesting point that may be noted here is that the constraint that affects the deictic present tense, namely that it must necessarily be durative (see 2.2.1) does not affect the non-deictic simultaneous tense; the latter can be durative or non-durative. Since the reference point of this non-deictic tense can be an event that is not directly associated with the utterance time, it is free of the above-mentioned constraint.

2.3.1   *Justifying the distinction in Kannada*

Grammarians of Kannada do not differentiate between deictic and non-deictic tense forms; nor do they consider the non-deictic tense forms given above to be constituting a single paradigm. The prior and simultaneous tense forms are generally considered to be past and present participles respectively (see Kittel 1903, Schiffman 1979: 67, Sridhar 1990: 71), whereas the posterior tense form is considered to be an infinitive; the latter is also regarded as showing no "tense" distinction as such. It is evident from the examples given above, however, that the three forms do form a paradigm in Kannada; all three of them occur with deictic tense forms in two main types of constructions, namely (i) with various other verbs and (ii) with the auxiliary verb *iru* 'to be'. In all these usages, they indicate the three non-deictic tenses mentioned above. For example, in the sentences given above (9a–c), the three participial forms *beːyisi* 'having cooked', *beːyisuttaː* 'while cooking' and *beːyisalu* 'for cooking later' indicate only non-deictic tenses, as their point of time is only relative to the point of time of the event of cutting and not that of the utterance as such. It would be incorrect, therefore, to regard them as "past" or "present" participles.

The three non-deictic tense forms can occur with non-past forms of verbs also, as can be seen from the following examples:

(14)   a.   *naːnu haNN-annu kattaris-i beːyisu-tt-eːne*
              I   fruit-ACC   cut-PRIOR cook-NON.PAST-1SG
              'I will cook the fruit after cutting it'

b. *naːnu haNN-annu kattarisu-ttaː beːyisu-tt-eːne*
I fruit-ACC cut-SIMUL cook-NON.PAST-1SG
'I will cook the fruit while cutting it'

c. *naːnu haNN-annu kattaris-alu beːyisu-tt-eːne*
I fruit-ACC cut-POST cook-NON.PAST-1SG
'I will cook the fruit for cutting it later'

The structure and meaning of auxiliary constructions in which these three non-deictic tense forms combine with the verb *iru* 'to be' can be shown clearly with the help of the following table in which the three rows represent non-deictic tense forms of the verb *hoːgu* 'to go' (Kannada also has a negative converb, contrasting with these affirmative converbs (*hoːgade* 'without going') which can occur in this auxiliary construction, but it does not show any tense distinction) and the three columns represent the deictic tense forms of the auxiliary verb *iru* 'to be':

Table 1. Auxiliary constructions

	past	present	future
prior	*hoːgidda*	*hoːgiddaːne*	*hoːgiruttaːne*
simultaneous	*hoːguttidda*	*hoːguttiddaːne*	*hoːguttiruttaːne*
posterior	*hoːgalidda*	*hoːgaliddaːne*	*hoːgaliruttaːne*

The following sets of sentences exemplify the contrastive uses of these auxiliary constructions:

(15) a. *muːru gaNTe-ge aːta manege hoːg-i-d-d-a*
three hour-DAT he home go-PRIOR-be-PAST-3MASC:SG
'He had gone home by three o'clock'

b. *muːru gaNTe-ge aːta manege hoːg-i-d-d-aːne*
three hour-DAT he home go-PRIOR-be-PRES-3MASC:SG
'He has gone home (*by three o'clock)'

c. *muːru gaNTe-ge aːta manege hoːg-i-ru-tt-aːne*
three hour-DAT he home go-PRIOR-be-FUT-3MASC:SG
'He will have gone home by three o'clock'

(16) a. *muːru gNTte-ge aːta manege hoːgu-tt-id-d-a*
three hour-DAT he home go-SIMUL-be-PAST-3MASC:SG
'He was going home at three o'clock'

    b.   *muːru gaNTe-ge   aːta manege hoːgu-tt-id-d-aːne*
          three   hour-DAT he   home   go-SIMUL-be-PRES-3MASC:SG
          'He is going home (now) at three o'clock'

    c.   *muːru gaNTe-ge   aːta manege hoːgu-tt-iru-tt-aːne*
          three   hour-DAT he   home   go-SIMUL-be-FUT-3MASC:SG
          'He will be going home at three o'clock'

(17) a.   *muːru gaNTe-ge aːta manege hoːg-al-id-d-a*
          three   hour-DAT he   home   go-POST-be-PAST-3MASC:SG
          'He was to go home at three o'clock'

    b.   *muːru gaNTe-ge aːta manege hoːg-al-id-d-aːne*
          three hour-DAT he home go-POST-be-PRES-3MASC:SG
          'He is to go home (now) at three o'clock'

    c.   *muːru gaNTe-ge aːta manege hoːg-al-iru-tt-aːne*
          three hour-DAT he home go-POST-be-FUT-3MASC:SG
          'He will be going home at three o'clock'

The use of posterior-future forms, such as *hoːgaliruttaːne* in third person masculine singular, is rather infrequent, but the ones in third person neuter singular, such as *hoːgaliruttade* 'one needs to go' is quite frequent. Notice that each of the nine forms given above in the table represents a distinct person-gender-number paradigm, each of which contains nine different forms. The table gives only the third person masculine singular form.

Grammarians of Kannada use the term "infinitive" for denoting the posterior form, but that term is unsuitable for this form because the form functions only as an adverbial in this language; it cannot take case suffixes (excepting the dative *ke* for denoting purpose); the term "purposive", used by some scholars, is also not very suitable as seen, for example, in the use of that form in auxiliary constructions like *baralidda* 'he was to come' and *baraliddaːne* 'he is going to come'. The notion of "purpose" is absent in either of these two usages. The meaning that is consistently associated with this form in all its usages is that of posterior tense.

According to Subrahmanyam (1971: 452), infinitive in Dravidian has several meanings such as purpose, cause, and effect, but in Kannada, its use is restricted to contexts in which the speaker indicates an event that is to occur after another event. That is, the notion of "cause" or of being anterior (or simultaneous) to another event is not expressed by this form in Kannada. Some grammarians do provide instances of the latter type of usage (see (18) below), but such construc-

tions are absent in the spoken form, and are most infrequent (probably to be found in grammar books only) even in the written form.

(18) *ʔraːju tarakaːri tar-alu   siːte aDuge maːDidaLu*
Raju   vegetable bring-POST Site cooking did
'While Raju brought vegetables, Site cooked (them)'

Some of the complex forms given above appear to provide translations as perfect, pluperfect and progressive, but these meanings do not constitute their primary connotations. The primary connotations are the combinations of non-deictic and deictic tense distinctions listed earlier, and the aspectual or modal connotations only occur as their implications in some of the restricted contexts. For example, as I have mentioned above, constructions involving the posterior form provide purposive meaning in some of the usages (especially in some of the main verb constructions), but in others like auxiliary constructions, they provide only the posterior meaning and not the purposive meaning. Even in main verb constructions, they do not always provide this purposive meaning. This is especially true of their use with non-volitional verbs. Examples:

(19) *nanage ondu haNNu tinn-alu sikkitu*
me   one fruit   eat-POST got
'I got a fruit to eat'

(20) *aː   mara biːL-alu siddhavaːg-ide*
that tree   fall-POST ready-is
'That tree is ready to fall'

Similarly, the prior-past and prior-present auxiliary constructions are generally translated as pluperfect and present perfect respectively, but their usage is quite different from that of the corresponding perfect forms of languages like English. They behave more like complex constructions than as unified tense forms. One interesting point that supports this claim is that the prior-present forms can allow temporal adverbials to denote a past point of time. Examples:

(21) *avanu ninne-yeː   ban-d-id-d-aːne*
he   yesterday-EMPH come-PRIOR-be-PRES-3MASC:SG
*'He has come yesterday itself'

(22) *naːnu ninne naːlku gaNTe-ge ed-id-d-eːne*
I yesterday four hour-DAT rise-PRIOR-be-PRES-1SG
*'I have got up yesterday at four o'clock'

In fact a temporal adverbial can modify either the participle or the auxiliary verb in such constructions as can be seen from the following sentences:

(23)   a.   *avanu ninne   beʟigge ban-d-id-d-a*
           he   yesterday morning come-PRIOR-be-PAST-3MASC:SG
           'He had come yesterday morning'
     b.   *avanu muːru divasa ban-d-id-d-a*
           he   three day   come-PRIOR-be-PAST-3MASC:SG
           'He had been here for three days'

Notice that in (23a) the adverbial *ninne beʟigge* 'yesterday morning' modifies the participle of the main verb *baru* 'to come', whereas in (23b) the adverbial *muːru divasa* 'three days' modifies the auxiliary verb *iru* 'to be'. The latter can also ambiguously indicate that he had come on three days, i.e. the adverbial can also modify the participle. This point indicates clearly that the prior-past form is a complex construction in Kannada.

In English, present perfect indicates an event which is closer to the utterance time than the one denoted by the simple past form, apparently because an immediate event would have greater degree of present relevance than a non-immediate one. However, the auxiliary construction containing a prior verb followed by a present auxiliary in Kannada indicates an event that is non-immediate as compared to the corresponding simple past form. Examples:

(24)   a.   *naːnu ban-d-e*
           I   come-past-1SG
           'I came (just now)'
     b.   *naːnu ban-d-id-d-eːne*
           I   come-prior-be-PRES-1SG
           'I have come' (I came sometime back)'

This distinction between simple past and prior-present forms also gets reflected in the fact that Kannada uses the former, but not the latter, for denoting an action which is going to be carried out immediately by the speaker. Example:

(24)   c.   *iːga ban-d-e*
           now come-past-1SG
           (i)   'I came just now'
           (ii) 'I am coming in a moment'

Another interesting point that supports the above-mentioned claim is that, unlike the present perfect construction of English, the corresponding auxiliary construction of Kannada can occur in the imperative and also in nominalizations and other non-finite verbal constructions. Examples:

(25) a. *niːnu beliggeːneː   ban-d-iru*
        you   morning (EMPH) come-PRIOR-be
        'You come and be here in the morning itself!'

    b. *avanu ivatteː   ban-d-iru-v-udu   aːšcarya*
        he   today (EMPH) come-PRIOR-be-NON.PAST-it surprise
        'It is surprising that he has come today itself'

(26) *svalpa hottu oːdu-ttaː   iru*
      little   time read-SIMUL be
      'Be reading for a while!'

Constructions containing simultaneous tense forms are generally regarded as involving progressive (or durative) meaning. But the contrast that they establish with prior and posterior forms in the paradigms given above makes it clear that the language places greater emphasis upon their non-deictic tense meaning than upon their aspectual meaning. The latter meaning can therefore be regarded as an implicational one.

Another interesting point that my be noted here is that tense suffixes occurring in deictic finite forms (past and non-past) are somewhat different from the ones occurring in non-deictic converbal forms (prior, simultaneous and posterior). The two deictic suffixes are, *(i)d* (with several alternants like *d, id, t, ʈ,* etc.) for past, and *tt* or *v* for non-past, and the three non-deictic suffixes are *i* (with several alternants of which some are identical with those of past) for prior, *ttaː* for simultaneous and *alu* for posterior. Examples:

(i) Deictic tenses:

    past   *hoː-d-e*   'I went'
                    go-PAST-1SG

    non-past   *hoːgu-tt-eːne*   'I go'
                    go-NON.PAST-1SG

(ii) Non-deictic tenses:

    prior   *hoːg-i*   'after going'
                    go-PRIOR

simultaneous	*hoːgu-ttaː*	'while going'
	go-SIMUL	
posterior	*hoːg-alu*	'before going,
	go-POST	in order to go'

The partial identity between past and prior suffixes and also between non-past and simultaneous suffixes apparently derives from the diachronic fact that the two types of suffixes originate from a single set of tense suffixes; however, past and prior suffixes are formally distinct in the case of the majority of verbal bases (about 80 per cent) with the past suffix being represented by the morph *(i)d* and the prior suffix by *i*; the two are identical only in the case of certain "irregular verbs".

2.3.2   *Need for the distinction*

I have proposed in this chapter that it would be useful to differentiate between deictic and non-deictic tenses by using two distinct sets of terms for referring to them, namely past, present (or non-past) and future for deictic tenses and prior, simultaneous and posterior for non-deictic tenses. I believe that the failure to differentiate between these two types of tenses has given rise to some amount of confusion in the description of tense forms and their connotations. For example, Schiffman (1969: 38) writes that, in Tamil, the past tense suffix occurring in adverbial participles is semantically empty since it is the same no matter what the tense of the next verb is, and could be easily introduced by a transformation. Lehmann (1989: 72, 265) also considers the verbal participle of Tamil (formed, according to him, by adding the participle suffix, which is homophonous with the past tense suffix, to the verb) to be "tenseless" because its time reference is determined by the main verb.

A closer examination of the use of this participle indicates, however, that in all its usages, it indicates an event which is prior to the event denoted by the following (matrix or another participial) clause. Lehmann (1989: 267) apparently considers the following sentence to be representing the use of the participle for denoting "non-temporal" conjunction:

(27)   a.   *kumaːr viːTT-il   taŋk-i   pakal muzuvatum*
           Kumar house-LOC stay-PAST day   whole
           tuːŋk-in-aːn
           sleep-PAST-3MASC:SG
           'Kumar stayed at home and slept the whole day'

Notice, however, that the sentence becomes unacceptable (or at least its meaning changes) if the verb *tuːŋku* 'sleep' is used in the participial form instead of the verb *taŋku* 'stay' as shown below. That is, there is a need to regard the latter event ('stay', which is denoted by the past participle) as prior to the former event ('sleep').

(27)   b.   *ʔkumaːr pakal muzuvatum tuːŋki   viːTT-il*
              Kumar day   whole   sleep-PAST house-LOC
              taŋk-in-aːn
              stay-PAST-3MASC:SG
              'Kumar slept the whole day and stayed at home'

Lefebvre & Muysken (1988) introduce a formal distinction between main tense and relative tense for Quechua. They describe the former as relating the time of the event expressed in a proposition to the moment of speech, and the latter as relating the time of an event to that of an event described in the matrix clause. The latter are also called "-Main tense", implying that they occur in subordinate clauses. We may regard this distinction as between deictic and non-deictic tenses. Reh (1996), on the other hand, describes Anywa, a Western Nilotic language, to be a "relative tense language", in which the point of temporal reference coincides with the time of speaking only in cases in which there is no explicit temporal reference otherwise, be it in the shape of a temporal adverbial, or in that of another clause. Tenses of Anywa are therefore described by Reh (a) as applying at the time point imagined (non-past), (b) as having ceased to apply at that point (past), and (c) as applying at a time-point after the one imagined. Reh also describes perfect as having only the results that apply at the time-point imagined.

Linguists generally postulate two different reference points, namely (i) an "utterance time" or speech time, i.e. the time of uttering the sentence that is under consideration, and (ii) a "reference time", i.e. a point of time which may be distinct from it and is generally denoted by a temporal adverbial. The need to differentiate between these two types of reference time was originally put forth by Reichenbach (1947) in order to differentiate between sentences like the following:

(28)   a.   *I lost my pen yesterday.*
        b.   *I have lost my pen.*
        c.   *I had lost my pen by the time I came here.*

The first sentence (28a) is in simple past tense, in which the reference time (*yesterday*) is considered to be occurring prior to utterance time, but the event

time is simultaneous with it. The difference between this sentence and the next one (28b), which is in present perfect tense, according to Reichenbach, is that in the latter case the reference time is identical with utterance time, and only the event time is prior to utterance time. This latter point is supported by the fact that, in English, a sentence in present perfect cannot take an adverbial denoting a past reference time. Example:

(28)   d.   *I have lost my pen yesterday.*

In the case of the third sentence (28c) given above, which is in pluperfect (or past perfect) tense, on the other hand, all these three reference points are considered to be distinct from one another, with the reference time (the time of *my coming here*) occurring prior to utterance time, and the event time (the time of *my losing my pen*) occurring prior to that reference time (i.e. of *my coming here*).

Comrie (1985: 78) argues, however, that this representation of the distinction between past and present perfect in terms of time location is untenable; the two differ, according to him, in the fact that the latter involves an additional notion of "current relevance". On the other hand, other scholars like Declerck (1986) argue that the two do differ from one another in their reference time (or rather the "time of orientation", according to Declerck) as well.

I would like to suggest, in this connection, that the postulation of two different types of tenses, namely deictic and non-deictic, which may or may not be dependent upon one another, would help us to resolve this problem to a certain extent. For example, in the case of Dravidian languages, the so-called perfect forms generally involve a combination of non-deictic and deictic tenses with either of them having the ability to occur with temporal adverbials of their own. They are not, therefore, comparable to simple past tense forms as far as the occurrence of reference time is concerned.

As I will be arguing in a following section (see 2.5), temporal adverbials function as parallel structures to tense markers. They make use of all the parameters of tense, and introduce certain additional parameters as well, and further, they are able to provide greater detail in the case of all these parameters. However, it is necessary to describe the system of tense independently of these adverbials because the latter are only optional elements that may be used to *modify* tense, if necessary; they do not form an essential part of the tense system.

Further, as I will be pointing out in the second part of this monograph (7.7.1), there are cross-linguistic differences in the categorial position of the notion of "perfect", with aspect-prominent languages including it under the

category of aspect and tense-prominent languages including it under the category of tense. We cannot therefore establish an analysis of perfect that would apply uniformly to all languages. In the case of languages in which the notion of "perfect" gets included under the category of tense (like Dravidian languages), it would perhaps be possible to claim that it is a combination of non-deictic and deictic tenses, as I have pointed out above. Aspect-prominent and mood-prominent languages, on the other hand, would use other devices for representing the notion of "relevance at a specified point of time".

2.4 Distance from the reference point

We have so far examined the occurrence of two different parameters in the expression of tense, namely (i) relative position on the time line (before, simultaneous or after) and (ii) the nature of reference point used (deictic or non-deictic). The third parameter that needs to be examined in connection with the category of tense concerns the relative distance of an event from a given reference point. Instead of merely indicating that the event occurred before or after the reference point, tense markers may specify further as to whether it occurred immediately before or after the reference point, or whether the occurrence was farther removed from that point.

Distances from the reference point can be specified in great detail and accuracy with the help of temporal adverbials in the case of all languages. Consider, for example, the following Kannada sentences:

(29) a. *na:nu ninne   beLigge e:Lu: mu:vatt-aid-akke bande*
           I   yesterday morning seven thirty-five-DAT   came
           'I came yesterday morning at seven thirty-five'
      b. *na:nu na:Le   beLigge e:Lu: mu:vatt-aid-akke barutte:ne*
           I   tomorrow morning seven thirty-five-DAT   come
           'I will come tomorrow morning at seven thirty-five'

The point which interests us here, however, is that in the case of some languages, there are also distinct tense markers which are used for denoting remoteness distinctions in the form of a set of simple contrasts, leaving the function of providing greater details to adverbials (as in the case of the other two parameters). I have already given an example for this possibility from Nkore-Kiga (see 2.1) in which there is a three-fold differentiation in the case of past

tense (between today past, yesterday past and remote past) and a two-fold differentiation in the case of the future tense (between near future and remote future).

Remoteness distinctions are also expressed in Mishmi, a Tibeto-Burman language of the North-Assam group. According to Sastri (1984: 132), Mishmi makes a recent-remote distinction in the case of its past tense suffixes, and an immediate-distant distinction in the case of its future suffixes. In the latter case, the suffixes make additional distinctions of person and number (of the subject) as shown below:

recent past		*so*
remote past		*liyà*
immediate future		
	III person	*à*
	other persons	*de*
distant future		
	I singular	*ne*
	I plural	*ke*
	II person	*yà*
	III person	*biŋ*, *biya*
	definite	*li*

The use of recent and remote past tense suffixes can be exemplified with the help of the following sentences:

(30) a. *hɛ̃́ tapɛ̃́ thá-so*
          I rice eat-PAST.RECENT
          'I ate rice'
      b. *hɛ̃́ tapɛ̃́ thá-liyà*
          I rice eat-PAST.REMOTE
          'I ate rice'

The distinction between these two tenses, according to Sastri (1984: 132), is in the time lag between the event and the utterance. This time lag, however, is abstract in the sense that it is more of the speaker's attitude towards the event than the actual interval that has elapsed after the event is over and the speaker talks about it. There is a constraint on the use of recent past as against that of remote past in that the former cannot be used in contexts in which it has resulted in another event or has been followed by some other event. Remote past, on the

other hand, does not usually occur with adverbs of very recent time like *tyago* 'just now' (unless the speaker intends to implicate another event as a consequence of that event).

In the case of future tense also, the immediate form is used when the speaker expects the event to follow the utterance without the intervention of any other event or without any time lag. Examples (Sastri 1984):

(31) a. *hɛ̃́ thá-de*
          I   eat-FUT.IMMEDIATE.NON-3
          'I shall eat'
      b. *cyá thá-a*
          he eat-FUT.IMMEDIATE.3
          'He will eat'

Distant future, on the other hand, is used in contexts in which the time at which the event is expected to take place is rather vague. Examples:

(32) a. *hɛ̃́ tapḗ thá-ne*
          I rice eat-FUT.DISTANT.1SG
          'I shall eat rice'
      b. *níŋ tapḗ thá-re-ke*
          we rice eat-PL-FUT.DISTANT.1PL
          'We shall eat rice'
      c. *nyú aŋ   haná-yà*
          you home come-FUT.DISTANT.2
          'You will come home'
      d. *wé aŋ   bó-bìŋ*
          he home go-FUT.DISTANT.3
          'He will go home'

There is an additional remote future suffix *li* that occurs after the suffix *kõ* denoting the definitive mood, or before the negative suffix *ɨm*; it does not make any personal distinctions. Examples:

(33) a. *hɛ̃́ tapḗ thá-kõ-li*
          I   rice eat-DEF-FUT.REMOTE
          'I shall certainly eat rice'
      b. *hɛ̃́ tha-l-ɨm*
          I eat-FUT.REMOTE-NEG
          I shall not eat'

This remoteness distinction, however, is restricted to action verbs. Stative verbs (cognitive, sensory, existential and ambient verbs), on the other hand, make use of a three-fold past-present-future tense distinction, by using the same set of suffixes mentioned above. In the case of these latter type of verbs, the recent past suffix *so* is used to denote simple past tense, whereas the remote past suffix *de* is left unused; the immediate future suffixes denote present tense, whereas the distant future suffixes denote future tense. Examples:

(34) a. *jyimcyanewè jyím kasà-so*
          Jimchane   truth know-PAST
          'Jimchane knew the truth'

      b. *hawè masyetyó-de*
          I   hungry-PRES
          'I am hungry'

      c. *hawè bútyù   jyím kasà-ne*
          I   sometime truth know-FUT
          'Sometimes I shall learn the truth'

Verbs containing the continuous aspect suffix *bɨrɨ* also show a three-fold past-present-future tense distinction in a similar fashion; they are not inflected for the remoteness distinction. Verbs containing the repetitive-durative suffix *ma*, on the other hand, show only a past-future tense distinction (Sastri 1984: 145).

It is interesting to note, in this connection, that the proximate-remote distinction that Tulu (a Dravidian language) shows in past tense is restricted to deictic tenses. The distinction occurs in finite verbal forms (35a, b) and also in relative clauses (36a, b), which involve deictic tense, but not in converbs (37), as shown below:

(35) a. *raːme bat-t-e*
          Ram   come-PAST.IMMEDIATE-3MASC:SG
          'Ram came (just now)'

      b. *raːme bat-tɨd-e*
          Ram   come-PAST.REMOTE-3MASC:SG
          'Ram came (earlier)'

(36) a. *bat-t-i*   *raːme*
          come-PAST.IMMEDIATE-REL.PART Ram
          'Ram who came (just now)'

b. *bat-tɨd-ɨ*   *raːme*
    come-PAST.REMOTE-REL.PART Ram
    'Ram who came (earlier)'

(37) *raːme bat-tɨd-ɨ*   *paːterye*
    Ram   come-PAST-CONVERB spoke
    'Ram came and spoke (to someone)'

Notice that the converbal form in (37) uses the remote past tense suffix but it does not make any remoteness distinction. Diachronically, the remote past form derives from a periphrastic construction containing the auxiliary verb 'to be'.

As I would be pointing out later (see 7.9), distinctions of temporal distance, especially when they involve several affixes as in Mishmi, are basically modal rather than temporal. They represent evidential distinctions in the sense that one can be more sure about what happened today as compared to what happened yesterday or several days or years earlier.

2.5 Use of temporal adverbials

Temporal adverbials have the function of modifying the temporal character of the verb, or rather that of providing additional information about the location in time of the event (or state) that the verb denotes. In order to carry out this function, the temporal adverbials have to replicate tense by establishing a parallel structure that is related to the temporal structure that the tense system denotes.

Notice that the temporal adverbials make use of all the parameters that are used by tense markers such as the deictic/non-deictic distinction, prior-simultaneous-posterior distinction, and the immediate-remote distinction. But in addition to this, they also make use of certain additional parameters such as the location of an event between two different points of time (see below for examples).

The fact that the temporal structure represented by temporal adverbials is parallel to the one represented by tense markers apparently derives from the diachronic line of development, namely that tense is the grammaticalized version of the temporal structure that the adverbials represent. However, tense is independent of temporal adverbials and can stand on its own without the support of the latter; the adverbials, on the other hand, are constrained by tense even though there do occur some contexts in which they may conflict with tense (see 2.5.4).

Linguists have generally regarded temporal adverbials as providing an

additional parameter for tense; it is generally claimed that for a proper under-standing of tense, it needs to be interpreted in association with temporal adverb-ials (see Smith 1978, 1981, Declerck 1986, 1991). This claim, I think, is untenable. The temporal adverbials only replicate (and expand upon) tense. The additional information that they provide about the temporal location of the event concerned is not essential or indispensable. That is, the distinction is similar to the one between personal pronouns on the one hand and personal markers that replicate gender-number-person distinctions that the system of personal pronouns represents on the other. It is quite possible to interpret either of these two independently of the other, even though the two are interconnected.

The term "temporal adverbials" is also used traditionally for denoting adverbials which modify the aspectual character of the verb, i.e., adverbials which indicate the duration, frequency, extent (from or to a particular point of time), etc. of an event. I propose to examine these latter type of adverbials separately in the next chapter (3.6). The present section is concerned only with adverbials that provide additional information about the temporal location of an event.

It may be noted in this connection that even some of the most recent researchers have failed to differentiate between temporal and aspectual adverb-ials, and have thereby unnecessarily made the description of tense rather complicated. For example, Declerck (1986, 1991) postulates four different parameters for his theory of tense, namely (i) time of utterance (TU), (ii) time of situation (TS), (iii) time or reference (TR), and (iv) time of orientation (TO), of which only the first one is considered to be momentary; others can be momen-tary or durative. The complexity of this system derives from the momentary-durative distinction which, however, is only an aspectual distinction, and is not directly relevant for a theory of tense.

2.5.1   *Deictic/non-deictic distinction*

The deictic/non-deictic distinction occurring among temporal adverbials can be exemplified with the help of the following Kannada sentences:

(38)   a.   *avanu ninne   ban-da*
             he   yesterday come-PAST
             'He came yesterday'
        b. **avanu ninne   baru-ttaːne*
             he   yesterday come-NON.PAST

(39) a.   *avanu na:Le   baru-tta:ne*
              He   tomorrow come-NON.PAST
              'He will come tomorrow'

      b.   **avanu na:e*   *ban-da*
              he   tomorrow come-PAST

The two adverbials, *ninne* 'yesterday' and *na:Le* 'tomorrow', are deictically distinct as shown by the fact that the former cannot be used with a verb in non-past tense (38b) and the latter cannot be used with a verb in past tense (39b). Both of them, however, can occur with any of the three non-deictic tense forms, i.e. prior, simultaneous or posterior. Examples:

(40) a.   *avanu ninne   ban-du   ha:Dida*
              he   yesterday come-PRIOR sang
              'He came yesterday and sang'

      b.   *avanu ninne   aLu-tta: u:Ta ma:Dida*
              he   yesterday cry-SIMUL meal did
              'He dined yesterday crying'

      c.   *avanu ninne   ha:D-alu mareta*
              he   yesterday sing-POST forgot
              'He forgot to sing yesterday'

(41) a.   *avanu na:Le   ban-du   ha:Dutta:ne*
              he   tomorrow come-PRIOR sings
               'He will come and sing tomorrow'

      b.   *avanu na:Le   ha:Du-tta: kuNiyutta:ne*
              he   tomorrow sing-SIMUL dances
               'He will dance singing tomorrow'

      c.   *avanu na:Le   ha:Dalu ho:gutta:ne*
              he   tomorrow sing-POST goes
              'He will go to sing tomorrow'

Non-deictic adverbials, on the other hand, can occur with any of the deictic tenses. Examples:

(42) a.   *avanu ivattu ban-da*
              he   today come-PAST
              'He came today'

b. *avanu ivattu baru-tta:ne*
he today come-NON.PAST
'He comes today'

There are some contexts in which tense markers leave certain distinctions, such as for example the one between habitual and future in Kannada, unspecified or ambiguous, and in such contexts, the use of an adverbial can help us to specify one or the other of the two relevant meanings and thereby to disambiguate the sentence. Examples:

(43) a. *kuDi-du baruv-avarige kelasa illa*
drink-PRIOR come-them work not
'There is no work for those who come after drinking'

b. *na:Le kuDi-du baruv-arige kelasa illa*
tomorrow drink-PRIOR come-them work not
'There is no work for those who come after drinking tomorrow'

c. *ya:va:galu: kuDi-du baruv-avarige kelasa illa*
always drink-PRIOR come-them work not
'There is no work for those who always come after drinking'

Notice that there is ambiguity between habitual and future in (43a), which is removed in (43b) and (43c) through the use of deictic and habitual temporal adverbials respectively.

2.5.2 *Positional distinctions*

Temporal adverbials also show a distinction between prior, simultaneous and posterior depending upon the position of an event relative to some other event. The following Kannada sentences exemplify this distinction:

(44) a. *na:nu na:lkak-ke modalu bande*
I four-DAT before came
'I came before four (o'clock)'

b. *na:nu na:lkak-ke bande*
I four-DAT came
'I came at four'

c. *na:nu na:lka-ra anantara bande*
I four-GEN after came
'I came after four'

Notice that the temporal distinction that the adverbials indicate in these sentences is independent of the tense distinction that the verb denotes; all the adverbials occur with a verb in past tense in (44a–c), but it is also possible for all of them to occur with a verb in non-past tense. Example:

(44) d. *na:nu na:lkak-ke modalu barutte:ne*
       I four-DAT before come (NON.PAST)
       'I will come before four'

The adverbials also make use of their own reference points, which are distinct from the ones used by the tense forms that they modify. These reference points may be denoted by nominals as in the sentences given above, or by adjectival participles, as in the following sentences:

(45) a. *avanu baru-va   modalu na:nu bande*
       he   come-NON.PAST before I   came
       'I came before he came/comes'
   b. *avanu baru-v-a:ga   na:nu o:dutt-idde*
       he   come-NON.PAST-then I   reading-was
       'I was reading when he came'
   c. *avanu ban-da   me:le na:nu bande*
       he   come-PAST after I   came
       'I came after he came'

All these adverbials can occur with non-past verbs as well. That is, the reference points that they make use of do not affect the tense forms of these verbs. Examples:

(46) a. *avanu baru-va   modalu na:nu barutte:ne*
       he   come-NON.PAST before I   come
       'I will come before he comes'
   b. *avanu ban-da   me:le na:nu barutte:ne*
       he   come-PAST after I   come
       'I will come after he comes'

As I had mentioned earlier, temporal adverbials could indicate additional complexities about the temporal position of an event; in the following sentences, for example, the adverbials indicate that the event occurred between two different reference points:

(47) a. *na:nu mu:rar-inda na:lka-ra oʟage ho:gutte:ne*
     I   three-from   four-GEN inside go
     'I will go between three and four'

    b. *na:nu a:ke banda me:le ni:vu baruva modale: horaʈe*
     I   she came after you came before started
     'I started after she came but before you came'

The point to be noted here is that these complexities expressed by temporal adverbials do not directly affect the temporal system that is being established by the tense suffixes.

2.5.3   *Remoteness distinctions*

As I had mentioned earlier (2.4), there are some languages in which the relative distance of a given event from a reference point is expressed by distinctions of tense. In Mishmi, a Tibeto-Burman language, for example, there are distinct past and future suffixes for denoting immediate and non-immediate past and future events respectively. While these tense suffixes can indicate temporal distance only briefly, temporal adverbials can provide minute details about it, and can establish it with precision and complexity.

Notice, however, that in the case of languages in which remoteness distinctions are specified by tense markers, the occurrence of adverbials which indicate temporal distance would be constrained by tense markers. That is, adverbials, once again, would be dependent upon tense markers, but the latter would be independent of adverbials.

2.5.4   *Conflict with tense*

Temporal adverbials are found to conflict with tense primarily in sentences in which a speaker is reporting the statement of some other person. There would be two different deictic reference points in such sentences, namely (i) the utterance time of the statement that is being reported and (ii) the utterance time of the report itself. The conflict arises due to the fact that the temporal adverbials occurring in the original statement are allowed, in the case of some languages, to change their deictic reference point in order to agree with the utterance time of the report, whereas the tenses of the statement are allowed remain unchanged.

Consider, for example, the following Kannada sentences:

(48) a. *na:nu na:Le baru-tt-e:ne*
      I   tomorrow come-NON.PAST-1SG
      'I will come tomorrow'

    b. *avanu ninne baru-tt-e:n-endu he:L-idda*
       he   yesterday come-NON.PAST-1SG-that said-was
       'He had said that he would come yesterday'

    c. **na:nu ninne baru-tt-e:ne*
       I   yesterday come-NON.PAST-1SG
       *'I will come yesterday'

Notice that there are two different deictic reference points in (48b) (which is a report of (48a)) due to the fact that (48b) was uttered two days after (48a) was uttered and (48b) includes (48a). Notice, however, that the tense of (48a) remains unchanged in (48b), reflecting, correctly, the existence of two different deictic reference points in (48b), but the temporal adverbial *na:Le* 'tomorrow' changes to *ninne* 'yesterday' (apparently to agree with the matrix verb) and thereby produces a conflict with the tense of the embedded clause.

    However, Kannada does not appear to allow deictic adverbials to change from past to future when the matrix verb is in non-past tense and the embedded verb is in past tense (see Comrie 1985: 113 for the possibility of a conflict occurring in such cases in English). Example:

(49) d. ?*avanu eraDu divasa kaledu na:Le bande endu he:Lutta:ne*
       he   two   day   later   tomorrow came that says
      ?'He will say two days later that he came tomorrow'

    Hindi, on the other hand, has a set of temporal adverbs whose meaning is made more specific by the tense markers that occur with the verb; that is, the adverbs and tense markers can be regarded as complementing one another in this case. Hackman (1976: 122) points out that adverbs like *kal* 'one day removed', *parso* 'two days removed', *tarso* 'three days removed' and *ha:l me* 'recently' can provide more specific meanings like 'yesterday' or 'tomorrow', 'day before yesterday' or 'day after tomorrow', 'two days before yesterday' or 'day after tomorrow' and 'in the recent past' or 'in the recent future' respectively, depending upon the fact as to whether the verb which occurs in the sentence is in past tense or future tense. Examples:

(50)   a.   *vah kal   bambai gaya: tha:*
            he   one-day-removed Bombay went was
            'He went to Bombay yesterday'
       b.   *vah kal   bambai jaːega:*
            he   one-day-removed Bombay goes (FUT)
            'He will go to Bombay tomorrow'

CHAPTER 3

Category of Aspect

3.1 Introduction

As we have seen in the previous chapter, tense indicates the *temporal location* of an event by relating it either with the event of uttering the sentence that denotes the event (called deictic tense), or with some other event which is specified in the sentence itself (called non-deictic tense). Aspect, on the other hand, indicates the *temporal structure* of an event, i.e. the way in which the event occurs in time (on-going or completed, beginning, continuing or ending, iterative or semelfactive, etc.). This difference between the categories of tense and aspect can be exemplified with the help of the following pairs of Hindi sentences in which tense distinction is shown by the auxiliary verb and aspect distinction by the aspect suffixes occurring with the main verb itself.

(1)   a.   *mai aː-taː   hũː*
           I   come-IMPERF am
           'I am coming'   (Present Imperfective)

        b.   *mai aː-taː   thaː*
           I   come-IMPERF was
           'I was coming'   (Past Imperfective)

(2)   a.   *mai aː-yaː   hũː*
           I   come-PERF am
           'I have come' or 'I am come'   (Present Perfective)

        b.   *mai aː-yaː   thaː*
           I   come-PERF was
           'I had come (at some past time)'   (Past Perfective)

Notice that the two sentence pairs (1a–b) and (2a–b) given above differ from one another in aspect, with the former denoting an on-going event (imperfective aspect) and the latter denoting a completed event (perfective aspect). The

sentences (a) and (b) under each of these pairs, on the other hand, differ from one another in tense, with the former (1a, 2a) being in the present (non-past) tense and the latter (1b, 2b) in the past tense. Kellogg (1938: 234) points out in this connection that both (la) and (2a) agree in referring to an action occurring in the present time. They differ from one another, according to him, in that the former denotes an action as unfinished and the latter as finished. Similarly, both (1b) and (2b) refer to past actions, but (1b) represents it as an action in progress, and (2b) as a completed action. He points out further that Hindi allows its aspectual forms to be used without any auxiliaries, and in such a usage they denote only the aspect distinction and not any tense distinction. Examples:

(1)   c.   *mai aː-taː*
              I   come-IMPERF
              'I come, I would come'

(2)   c.   *mai aː-yaː*
              I   come-PERF
              'I came'

Among the sentences given above, (1c) indicates an on-going and unfinished action (at some unspecified time), whereas (2c) indicates a finished action (with its point of time unspecified). The English translations of these two sentences given here, however, are misleading, according to Kellog (1938), because they imply distinctions of tense as well.

The temporal (aspectual) structure of an event can show several other types of distinctions such as, for example, that the action may be momentary or durative, involving change (active) or not involving change (stative), occurring once (semelfactive) or occurring several times (iterative), occurring on a specific occasion or occurring habitually, and so on. Languages differ, however, in grammaticalizing one or more of these distinctions in their system of aspects. It has been suggested that these various types of aspectual distinctions can be divided into three distinct groups, namely (i) perfectives and imperfectives, (ii) ingressives, progressives, egressives and resultatives, and (iii) semelfactives, iteratives, habituals and frequentatives (see Dik 1989, Siewierska 1991). The first one is concerned with the distinction between the view of an event as a whole from outside versus the view of an event from inside. The second one, on the other hand, distinguishes between different phases of an event, and the third one represents distinctions concerning the various quantificational aspects of an event. It has been suggested further that the position of aspect markers in a verbal form

would be correlatable with this three-fold division, with the markers for the perfective-imperfective division occurring closest to the verbal base and the phasal and quantificational aspects occurring away from the base.

There is also a claim, made by some linguists, that it is necessary to differentiate between two main types of "aspectual" distinctions, by using the term "aktionsart" (a German word meaning "kind of actions") for referring to different *kinds of events* like processes and states, momentary and durative events, telic (resultative) and atelic events, etc., and by restricting the term "aspect" to the various ways of *viewing the events*, i.e. as complete or incomplete, specific or habitual, beginning (ingressive), continuing (progressive), or ending (egressive) etc. (see Smith 1986, Brinton 1988, Bache 1995). We may regard the former as non-deictic and the latter as deictic (as the latter involve a speaker's view of the event), but generally the distinction is considered to be one between lexicalization versus grammaticalization, with the former being lexical (or derivational) and the latter grammatical (or inflectional). The former are also called "situational aspects" in contrast with the latter which are called "viewpoint aspects".

There are some difficulties, however, in maintaining this aktionsart-aspect distinction consistently in a cross-linguistic study of languages. One interesting question that has been raised in this connection concerns the correlatability between lexical and grammatical representations on the one hand, and situations and viewpoints on the other. Certain aspectual (viewpoint) distinctions may occur as lexical or derivational distinctions in some languages and as inflectional distinctions in others. Further, the distinction between derivation and inflection may also not be sharp and clear-cut in some languages. In spite of these problems, however, the distinction can be used as a helpful device for a better understanding of the category of aspect.

3.2 Perfective and imperfective

The most important aspectual distinction that occurs in the grammars of natural languages is the one between perfective and imperfective. It primarily indicates two different ways of viewing or describing a given event. Perfective provides the view of an event as a whole from outside whereas imperfective provides the view from inside. The former is unconcerned with the internal temporal structure of the event whereas the latter is crucially concerned with such a structure. The

former views the situation as bounded, and as forming a unified entity whereas the latter views it as on-going or habitual (see Comrie 1976, Dahl 1985, Bache 1995).

There are several languages in which this perfective-imperfective distinction forms the basic division of verbal forms, with other aspectual, temporal and modal distinctions being regarded as forming different subdivisions of either the perfective or the imperfective category, or of both of them. In Supyire (Gur family of Niger-Congo), for example, the great majority of verbs have two forms, (i) a base, which is perfective, and (ii) a derived form, which is imperfective. Most tense-aspects require one or the other of these two forms, but a few like the habitual may take either (Carlson 1994: 130). In Kiowa of New Mexico and Arizona (Kiowan family), on the other hand, both perfective as well as imperfective stems can form the bases of several types of forms like past, future/potential, imperative, etc. Only the negative form is restricted to the perfective stem (Watkins 1984).

According to Berntsen and Nimbkar (1975, 1982), verbal participles denoting perfective and imperfective aspects (the terms used by them are "perfect" and "imperfect" respectively) form the basis of several tense forms in Marathi. The meaning distinction that these two participles indicate, according to them, is between (i) an action viewed as complete and (ii) an action viewed as in progress or repeated. The participles are followed by auxiliary verbs for denoting tense (and mood) distinctions. The following pairs of sentences exemplify this contrast:

(3) a. *to tikDe jat   ae*
         he there going (IMPERF) is
         'He is going there (right now he is on the way)'

     b. *to tikDe gel(a)   ae*
         he there gone (PERF) is
         'He has gone there'

(4) a. *to tikDe jat   hota*
         he there going (IMPERF) was
         'He was going there (he was on the way)'

     b. *to tikDe gela   hota*
         he there gone (PERF) was
         (i)   'He had gone there'
         (ii) 'He went there'

(5) a. *to tikDe jat* *əsel*
he there going (IMPERF) might
'He is probably going there'

b. *to tikDe gela* *əsel*
he there gone (PERF) might
'He has probably gone there'

It may be noted, however, that the English translation is rather misleading in these sentences. For example, Berntsen and Nimbkar (1982: 349) point out that the verb form in (4b), even though translated with English past perfect, is also often used to translate English simple past. Further, it is possible to take the time frame for granted once it has been set for the discourse, and therefore to drop the auxiliary in subsequent sentences. It is also possible to drop the auxiliary when the time frame is denoted by the speech context. Example (Berntsen and Nimbkar 1975: 94):

(6) *mi hOtel-mədhe bəslo* *hoto;*
I restaurant-in sit (PERF) was;
ek maNus at yeun majhya-jəvəL bəsla
one man in came me-near sit (PERF)
'I was sitting in a restaurant; a man came in and sat near me'

Notice that the completive past is expressed with the help of a perfective form (*bəslo*) and a past auxiliary (*hoto*) in the first clause, whereas in the second one it is expressed by the perfective verb (*bəsla*) occurring without the following auxiliary.

According to Jeanne (1978), most Hopi verbs occur in perfective-imperfective pairs. The perfective is simpler of the two forms in the majority of cases. A number of these can be viewed as forming their imperfective by means of suffixation to a base identical to the perfective. A number of them take a *k*-increment and some involve reduplication. Examples:

Gloss	Perfective	Imperfective
'send home'	*hoona*	*hoon-nta*
'write'	*peena*	*pen-ta*
'enter'	*paki*	*paki-wta*
'pull'	*laŋa*	*laŋa-ki-nta*
'exit'	*yama*	*yayma*
'give'	*maqa*	*mamqa*

| 'scatter' | *cala* | *calala-ta* |
| 'drip (leak)' | *cina* | *cinana-ta* |

Jeanne (1978) points out that this aspect distinction is different from tense distinction. Perfective verb denotes the completion of an action or a process in relation to a point of time. It denotes past tense only in the simplest cases. Similarly, imperfective denotes an on-going process only in the clearest cases. There are also other meanings, like repetitive, when reduplication is used, or when the suffix *wta* is used, for denoting it. Hopi also has a future suffix *ni* which can occur with both imperfective as well as perfective forms.

There is thus a tendency for perfective verbs to indicate past events, and also events that are punctual or resultative, and for imperfective verbs to indicate progressive and durative events, or events that do not terminate in a result. However, neither of these two sets of characteristics is essential for the perfective or imperfective to occur in a given context. It is quite possible, for example, for a future event to be viewed and described as perfective and a past event as imperfective; similarly, an event presented from a perfective viewpoint can be durative or progressive and the one presented from an imperfective viewpoint can be resultative.

For example, Noonan (1992: 136) reports that in Sango (Nilo-Saharan family of East Africa) verb is inflected for three aspects, perfective, progressive and habitual, but not for tense; out of context, perfective will be interpreted as past, habitual as present and progressive as present or future. But these can be assigned any tense with which they are semantically compatible; when appropriate temporal adverbials are used, perfective can have past or future (but not present) interpretations, and the other two can have past, present or future interpretations. Melotki (1985: 625) reports the situation in Hopi (for the perfective and imperfective forms of the verb) to be similar. In Kiowa, on the other hand, the imperfective verb denotes habitual and repeated activities and also events in progress, even if they are past events or activities. The language has a future perfective form which is used for denoting repeated events that are to take place in a bonded period of time (Watkins 1984: 157).

The presence of the above-mentioned correlation between perfective-imperfective aspect distinction on the one hand, and past/non-past tense distinction on the other, has led to the description of verbal forms, which denote primarily an aspectual distinction, as involving the past/non-past tense distinction. In the case of Indo-Aryan languages, for example, the grammars tend to use familiar terms like past and present for naming verbal forms which actually

represent the corresponding aspectual distinctions (see Masica 1991). Li (1991: 26) points out that, in most of the literature, Hmong (of Southern China) is considered as having a full-fledged past-present-future tense system. But a careful examination of the concerned forms reveals that the suffix *tan*, which is regarded as a past tense marker, is actually an aspectual one, as it denotes the "attainment" of an event, which may be past or future. This suffix, along with the suffix *lawm* 'completion', according to Li, can be regarded as representing the perfective aspect, whereas *taabtom* 'progressive' can be regarded as representing the imperfective aspect. Li considers the suffix *yuav* 'future' to be the only tense marker in Green Hmong.

We also find grammarians frequently using the terms "perfect" and "imperfect" for denoting the perfective-imperfective aspect distinction (see, for example, Berntsen and Nimbkar 1982, or Borg and Azzopardi-Alexander 1997) but the term "perfect" is also used for denoting a somewhat different concept, namely a completed event whose result persists at a specified point of time (as in the case of the English present perfect *has come*). Perfective needs to be differentiated from this latter concept because it does not specifically say anything about the result of the event or action concerned or its *relevance* to the present moment. It has therefore been suggested (Comrie 1976: 52) that the use of the term "perfect" may be restricted to this latter concept ('present relevance of a previous event') and the term "perfective" may be used exclusively for referring to the aspect that I have been describing in detail in this section.

3.3 Phasal aspects

An event may have a beginning and an end, a middle portion (continuing or changing), and also an ensuing result or an altered state. These are considered to be the various "phases" of an event. A speaker may talk about an event from the point of view of any of these individual phases, and his language may have inflectional (or other type of) markers for representing these distinctions. Since such markers indicate distinctions in the temporal *structure* of an event, we may regard them as belonging to the category of aspect. It has been suggested (Dik 1989: 186) that these may be grouped under a subcategory (or "level") of aspect called "phasal aspect".

Languages appear to differentiate between (i) the beginning, stoppage and ending of an event on the one hand, and (ii) its middle portion (continuing or

changing part) on the other, by affiliating the former with the perfective aspect and the latter with the imperfective aspect (see Comrie 1976: 19). The fact that the former denote the boundaries of an event and the latter denote its middle portion may be the basis of this correlation. As we have seen earlier (3.2), perfective provides a view of the event from outside and hence the boundaries of the event are in its view, whereas the imperfective provides a view of the event from inside and hence what is in its view is only the middle portion of the event. This correlation occurs in several of the Indo-Aryan languages in which the imperfective has been split into two distinct paradigms, namely habitual and continuous, by restricting the use of the imperfective for denoting habitual meaning and by attaching the verb *rah* 'remain' to the conjunctive participle (or to the verbal base itself) for denoting the continuous meaning (Masica 1991: 274). This latter form apparently started as a compound verb construction but in some of the languages like Hindi, it has been grammaticalized into a continuous (or progressive) participle, as shown in the following sentences (Hackman 1976: 97):

(7)   a.   *laʀka: patr likh-ta: hai*
           boy   letter write-IMPERF is
           'The boy writes letters (habitual)'
      b.   *laʀka: patr likh raha: hai*
           boy letter write remain (PERF) is
           'The boy is writing a letter'

Hackman notes that (7a) may also have the present (progressive) meaning, but (7b) is used more commonly than (7a) in that sense.

This distinction between the phasal aspects of the boundaries on the one hand, and of the middle part on the other, also appears to affect the grammatical-ization of phasal aspects. The former are generally expressed through lexical means whereas the latter are more frequently indicated by inflectional markers. In Manipuri, a Tibeto-Burman language, for example, there is a set of verbal roots for denoting the beginning, stopping and ending of an event; there are actually several types of stoppages for each of which the language has a distinct verbal root. These aspectual verbs are attached to the infinitive form of the main verb. The following verbs of this type have been recorded by Bhat and Ningomba (1997):

(i)   Verbs of beginning
      həw   'start'
      thu   'start quickly'

(ii) Verbs of stopping
    tok   'stop intentionally'
    lep   'stop due to interference'
    let   'almost stop'
    khək   'stop (bleeding)'
    phə   'stop being something'
    kham   'stop (causative)'
    thiŋ   'stop by putting obstruction'

(iii) Verbs of ending
    loy   'finish'
    pha   'complete'

The following sentences illustrate the use of some of these aspectual verbs in Manipuri:

(8)   a.   *məhak cət-pə   həw-wi*
            he   walk-INF start-NON.FUT
            'He started to walk (go)'
    b.   *məhak cət-pə   tok-i*
            he   walk-INF stop-NON.FUT
            'He stopped walking'
    c.   *i   thok-pəkhə k-i*
            blood bleed-INF   stop-NON.FUT
            'The bleeding stopped'
    d.   *məhak saw-bə   phə-y*
            he   anger-INF stop-NON.FUT
            'He stopped being angry'
    e.   *əynə məhak cət-pə   thiŋ-ŋi*
            I   him   walk-INF stop-NON.FUT
            'I stopped him going'
    f.   *məhak ca-bə   loy*
            he   eat-INF finish (NON.FUT)
            'He finished eating'

For denoting the starting of an event, Manipuri may use either the verb *həw* mentioned above, or the suffix *khət*. The two differ from one another in that the former denotes the starting of an event that may occur several times (habitual), whereas the latter denotes the starting of an event that may occur only once.

Examples:

(9)   a.   *məhak-nə phu-bə   həw-wi*
           he-NOM   beat-INF start-NON.FUT
           'He began to beat (and would continue to do so)'
      b.   *məhak-nə phu-gət-li*
           he-NOM   beat-start-NON.FUT
           'He began to beat (but would beat once only)'

For denoting distinctions connected with the middle phase, on the other
hand, Manipuri uses two different aspectual suffixes, namely (i) *lì* denoting
continuation or iteration, and (ii) *le* denoting the change that results from an
event's occurrence. There is also a third suffix *ləm,* which indicates the comple-
tion (or the cessation of a state). This third suffix is rather different from the
other two in that it can only be a medial one. The following sentences exemplify
the use of these suffixes:

(10) a.   *tombə   layrik pa-rì*
           Tomba book read-CONT
           'Tomba is reading the book'
      b.   *iran-də   numit khudingi mi   yamnə si-rì*
           Iran-LOC day   every   man many die-CONT
           'Many people are dying every day in Iran'

(11) a.   *ce   əsi mu-re*
           paper this black-change
           'This paper has become black'
      b.   *əynə thoŋ thiŋ-ŋe*
           I   door close-change
           'I have closed the door (it will not be open now)'

(12) a.   *məsi mu-rəm-mi*
           it   black-COMP-NON.FUT
           'It was black (but not any more)'
      b.   *yumthək ədu yu-rəm-mì*
           roof   that leak-COMP-CONT
           'That roof had been leaking (but not any more)'
      c.   *məhak həwjik ca-rəm-gəni*
           he   now   eat-COMP-FUT
           'He would still be eating now (incomplete)'

3.4   Quantificational aspects

The third type of aspectual distinction that gets represented in natural languages concerns the quantificational characteristics of events. A speaker may report an event as occurring once only (semelfactive) or several times (iterative); he may view it as a specific event or as part of a general habit of carrying out similar events; he may also differentiate between different degrees of frequency with which the event occurs. The markers that a given language provides for one or more of these meaning distinctions can be grouped under a subcategory called "quantificational aspect", as all of them refer to the quantitative aspect of the event concerned.

Among these quantificational aspects, habitual differs from iterative and frequentative crucially by the fact that the former is inductive whereas the latter are deductive. The latter can only be based upon the observation of several occurrences of the event concerned, whereas the former can be based upon the observation of a single occurrence. It can even be used by a speaker who has not actually observed any of the occurrences of the event concerned, as for example when he states the "habitual" arrival of a train by simply looking at the time table.

Notice, further, that frequency denoting adverbials like 'once', 'twice', 'ten times' or even 'several times' are not directly relevant for the use of the habitual aspect. As has been pointed out by Comrie (1976: 27), if someone coughed five times, this does not lead to an observation with the habitual aspect, namely that *the person used to cough five times.* That is, the use of the habitual marker *used to* cannot go with the frequentative adverbial *five times*; the latter is deductive in nature, whereas the former (habitual) is inductive in its establishment. However, the use of the former does involve quantification over a set of occasions in the sense that the event is predicted (inductively) to be occurring on a majority of such occasions (Dahl 1985: 96).

We may differentiate between iterative and frequentative by the fact that the former portrays events repeated on the same occasion (like the iterative knocking on the door) whereas the latter portrays events repeated on different occasions (like someone climbing a hill frequently). However, such a distinction can only be subjective in nature because it depends upon a distinction in the temporal gap between individual occurrences of the event, and this gap can be of different degrees of width.

I had described durative and progressive as belonging to the phasal subcategory in the previous section, but they also show affinity with iterative and

habitual aspects and hence they can as well be included in the quantificational subcategory. As I will be pointing out below, for example, when momentary verbs are used in their durative or progressive forms, they provide iterative meanings, and further, languages also use their durative forms for denoting habitual meaning.

Languages that differentiate between perfective and imperfective aspects generally express habitual and iterative meanings with the help of their imperfective forms. In Kiowa, for example, the imperfective verb covers a variety of non-completed events that include general statements, habitual or repeated activities and events in progress. Perfective forms, on the other hand, indicate a single completed event. This perfective-imperfective distinction occurs in the case of the imperative, future (or potential) and also hearsay statements in this language, and in all such cases, the imperfective denotes a continuous, repeated or habitual event and perfective denotes a bounded event (Watkins 1984).

In Indo-Aryan languages also, the imperfective form of the verb generally expresses habitual meaning. In Marathi, for example, the imperfective participle is used without any accompanying auxiliary verb, but with the personal markers directly attached to it, for denoting the present habitual meaning. Examples (Berntsen and Nimbkar 1975, 1982):

(13) a. *to roj   amčya kəDe ye-t-o*
          he daily our   place come-IMPERF-3MASC:SG
          'He comes to our place daily'
      b. *te   vəršatnə   donda pəNDhərpur-la ja-t-at*
          they year (LOC) twice Pandharpur-to go-IMPERF-3PL
          'They go to Pandharpur twice a year'

Masica (1991: 294) refers to the occurrence of several habitual paradigms in Punjabi, which are derived by adding different auxiliary verbal forms to the imperfective participle:

(14) a. *au-nd-aː*   *hai*
          come-IMPERF-3MASC:SG be (PRES)
          'He comes' (present habitual)
      b. *au-nd-aː*   *si*
          come-IMPERF-3MASC:SG be (PAST)
          'He used to come' (past habitual)

c. *au-nd-a:*   *hove*
    come-IMPERF-3MSG be (PROBABLE)
    'Perhaps he comes' (subjunctive habitual)

d. *au-nd-a:*   *hove-ga:*
    come-IMPERF-3MSG be (PROBABLE)-PRESUMPTIVE
    'He probably comes' (presumptive habitual)

e. *au-nd-a:*   *hu-nd-a:*
    come-IMPERF-3MSG be-IMPERF-3MASC:SG
    'had he come regularly' (contrafactive habitual)

In addition to these, the imperfective praticiple can also be used by itself in Punjabi to denote ambiguously unspecified habitual or contrafactive habitual.

Other quantitative aspects like iterative and frequentative are represented by more complex constructions. In Hindi, for example, frequentative is formed by attaching the imperfective form of the verb *kar* 'do' to the perfective form of the main verb. There is also a repetitive form which is derived by attaching either *ja:* 'go' or *rah* 'remain' to the imperfective form of the main verb (Kachru 1980: 48). Examples:

(15) a. *vah niyamit ru:p se yahã: a:y-a:*   *kar-ta:*   *tha:*
      he regular way by here come-PERF do-IMPERF was
      'He used to come here regularly'

     b. *vah kal*   *din bhar paʀh-ta:*   *rah-a:*
      he yesterday day whole read-IMPERF remain-PERF
      'He kept reading all day yesterday'

Several languages have been reported to use reduplication (complete or partial) of the verbal base for denoting the iterative aspect. In Mundari (Austro-asiatic), for example, verbal bases are partially reduplicated or the first vowel lengthened (or both) for denoting repeated actions, or more commonly, habitual actions (Hoffmann 1903: 182, Osada 1991: 92). The verb *dal* 'hit', for example, when reduplicated as *dadal*, provides the meaning 'hit repeatedly'; it also has the meaning of 'being in the habit of beating' or of being 'quick to beat'.

In Santali, another Austroasiatic language, repetition of the verbal base has the function of denoting repetition or continued performance of an act; it may also indicate repetition of the same act towards different objects or in different places (Bodding 1929: 179). According to Deeney (1975: 58), Ho makes a distinction between reduplication of the first syllable and lengthening of the first vowel, with the former stressing the repetition of an action and the latter

stressing the habitual occurrence of the same. In the case of verbs that begin with a vowel, however, reduplication would be obligatorily accompanied by vowel lengthening. Examples:

(16) a. *sen*   'walk'   *sesen*   'walk repeatedly'
      b. *ur*   'dig'   *u:ur*   'dig repeatedly'

(17) a. *iD*   'take'   *i:D*   'take habitually'
      b. *horo*   'guard'   *ho:ro*   'guard habitually'

Mao-Naga, a Tibeto-Burman language, uses the suffix *we* for denoting the habitual aspect (Giridhar 1994: 287). Examples:

(18) *kaikho ocükothuni mail kaxi tu-we*
      Kaikho daily mile two run-HAB
      'Kaikho runs two miles daily'

The suffix can be preceded by *Ti* to denote that the habit is infrequent or irregular, or by the marker *makra* to denote that its occurrence is regular. Examples:

(19) *pfohi ve-Ti-we*
      he   steal-infrequent-HAB
      'He steals infrequently'

(20) *ciThi.kopfomüi vu-makra-we*
      postman   comes-regularly-HAB
      'The postman comes regularly'

The frequentative meaning can be expressed by reduplicating the verb that occurs with the habitual suffix; the reduplication is partial in the case of polysyllabic verbs. Examples:

(21) a. *pfokrehrü pfokho he vuvu-we*
          Pfokruhru Pfokho to go (reduplicated)-HAB
          'Pfokruhru keeps going to Pfokho'
      b. *hehi ocü irürü-we*
          here rain rain (reduplicated)-HAB
          'It keeps raining here'

There is a connection between quantificational aspects occurring with verbs on the one hand, and number distinctions occurring with nouns on the other. Aspectual markers may denote plurality of arguments such as the agent, patient,

experiencer, location, etc., in addition to (or instead of) the plurality of actions in some of their usages. For example, in Manipuri, the suffix *mən* can denote both these types of plurality. It can also indicate excess or intensity in connection with one of the adverbials that occur in the sentence. Examples (Bhat and Ningomba 1997):

(22) a. *ma cəy-məl-li*
      he abuse-excess-NON.FUT
      'He abuses a lot'

    b. *ma mi yamnə cəy-məl-li*
      he man many abuse-excess-NON.FUT
      'He abuses too many people'

    c. *mabu mi yamnə cəy-məl-li*
      him man many abuse-excess-NON.FUT
      'Too many people abuse him'

(23) *ncŋ təpnə yon-məl-le*
    you slowly sell-excess-PROG
    'You have been too slow in selling'

Manipuri also makes use of the process of reduplication for denoting the meaning of excess; the reduplication, however, is combined with prefixation. There are two prefixes, *pum* and *i*, that can be attached to a verbal root, before the root is reduplicated. The two prefixes primarily have the completive meaning, but they can also provide quantitative connotation. Examples:

(24) a. *pum-leŋ leŋ-ŋi*
      complete-throw throw-NON.FUT
      '(He) throw away everything'

    b. *i-kaw kaw-wi*
      complete-forget forget-NON.FUT
      '(He) forgot everything (or completely)'

The latter prefix is more frequently used with the negative marker. Example:

(25) *i-nok nok-tre*
    complete-laugh laugh-NEG
    '(He) laughs only occasionally'

Wintu, on the other hand, uses the generic suffix *s*, added to substantives, in order to indicate meanings which are similar to that of imperfective and durative verbs (Pitkin 1984; see also 7.6.2 below).

3.5 Situational and viewpoint aspects

As I had mentioned earlier, some scholars claim that a distinction needs to be made between two different types of temporal structures that can be associated with a given event or situation. The structure may be in the situation itself, and may show distinctions such as, for example, between (i) events that have, inherently, an ending ("telic") and the ones which do not have any ending ("atelic"), (ii) situations which involve change (events) and situations which do not involve any change (states), (iii) events which involve some duration (durative) and events which do not involve any duration (punctual), and so on. We may regard these inherent distinctions in the temporal structure of situations as belonging to a category called "aktionsart" "situational aspect", "actionality" or merely "acion" (see Platzack 1979, Bache 1982, 1994, Smith 1983, 1986, Brinton 1988).

The second type of temporal structure that can be associated with a situation is based upon the speaker's viewpoint. As we have seen earlier, a speaker may view a situation from outside as a whole (perfective) or from inside as on-going (imperfective); he may refer to it from the point of view of its beginning, continuity or progression, end or stoppage, or result; he may also describe it as forming part of a habit, or of a series of events, emphasizing one or the other of its quantificational characteristics. This latter type of non-inherent temporal structure that a speaker can *ascribe* to a situation may be regarded as the "aspect" proper, or as the "viewpoint aspect", according to these scholars.

The question that has been raised in connection with this proposed distinction in the category of aspect (or between two entirely different categories called aspect and aktionsart) is whether there is sufficient grammatical basis for its postulation, i.e., whether there are languages in which a sharp and clear-cut distinction is made between the two such that the two need to be assigned to distinct systems of representations.

The distinction is comparable to the deictic/non-deictic distinction occurring among tenses (see 2.4.1), and also to the distinction between judgements and evidentials occurring among epistemic moods (see 4.2), in the sense that the subjective-objective dichotomy gets reflected in all these three cases. The contrast is rather clear-cut in the case of tense (in fact, the non-deictic variety of tense has been provided with a distinct name, "taxis", by some scholars), but in the case of both aspect and mood, there is a lot of overlap. For example, judgements would be based upon the type of evidence that the speaker has about

a situation, and similarly, the speaker's view of the temporal structure of a situation would be highly influenced by its inherent structure, and further, his understanding of the latter (situational aspect) would also be influenced by his own viewpoint.

Thus, Bache (1982: 65) finds it necessary to concede that (i) aktionsart is not always "objective" as it may involve the speaker's conception of the situation, and (ii) that aspect is also not always "subjective" as the speaker's choice of an aspect may be dictated by objective considerations to a considerable extent. He also finds it necessary to regard aktionsart (or actionality) as markedly different from tense and aspect in that is gets expressed, very frequently, by lexical distinctions rather than by grammatical distinctions (see Bache 1995).

There are also problems in establishing distinct systems of representation for aspect and aktionsart. Some scholars suggest that we might view aspect as the grammaticalization of the temporal structure and aktionsart as the lexicalization of the same. The problem with this proposal is that it would only provide a formal basis for the distinction, and not a functional or semantic basis that can be consistently correlated with it. For example, the distinction between events and states is generally considered to be an aktionsart, as it is represented only lexically in some of the familiar languages, but there do occur several languages in which it has a grammatical representation. For example, the distinction between perfective and imperfective forms of Hindi has been correlated by Trask (1979: 396) with an underlying state-process distinction. It cannot therefore be consistently regarded as an aktionsart (or aspect) on the above-mentioned formal basis.

The distinction, on the other hand, is useful in that it allows us to state explicitly some of the constraints that languages appear to impose upon the use of aspectual markers with different types of verbs. For example, the habitual aspect marker *we* does not occur with a class of stative verbs in Mao Naga as we have seen in the previous section; continuatives, when used with momentary verbs, provide iterative or frequentative meaning in several languages. Bache (1995) lists certain other possible constraints that actionsart (actionality) can impose upon the occurrence of aspect (and also of tense) such as punctuality or telicness being incompatible with imperfective aspect and also with present tense. Such constraints on the use and connotation of aspect markers can be explained as resulting from an interaction between situation and viewpoint aspects. There is apparently a need to make a more thorough study of such interactions.

3.6 Use of aspectual adverbials

As I had mentioned in the previous chapter (2.6), temporal adverbials may be used to modify either the temporal location (tense) of an event, or the temporal structure (aspect) of an event. Both these types of adverbials are generally called temporal adverbials, but it would be useful to regard only the former as "temporal adverbials" and to use the term "aspectual adverbials" for referring to the latter type of adverbials. The contrast between these two types of adverbials can be seen clearly in the following pair of Kannada sentences:

(26) a. *avanu muːru gaNTe-ge nidde maːDida*
             he   three hour-DAT sleep did
             'He slept at three o'clock'
      b. *avanu muːru gaNTe nidde maːDida*
             he   three hour sleep did
             'He slept for three hours'

Notice that the adverbial in (26a) is associated with the tense marker occurring in the verb, whereas in (26b) it is associated directly with the verbal base, i.e. the situational aspect or aktionsart denoted by it.

The following pair of sentences exemplify the occurrence of telic-atelic distinction among aspectual adverbials:

(27) a. *avanu muːru gaNTe oːdida*
             he   three hour read
             'He read for three hours'
      b. *avanu muːru gaNTe-yalli oːdi   mugisida*
             he   three hour-LOC   read (PRIOR) finished
             'He finished reading (the book) in three hours'

Aspectual adverbials may denote either the extent of duration (quantity) of a given event as it is, as in the preceding examples (26b, 27), or the extent from the point of its ingressive or egressive phases; they may also indicate other aspectual distinctions like frequency or habituality as well. Examples:

(28) a. *avanu naːlka-ra varege nidde maːDida*
             he   four-GEN until   sleep did
             'He slept until four o'clock'

b. *avanu muːru baːri nidde maːDida*
    he   three time sleep did
    'He slept three times (i.e. on three occasions)'

c. *avanu yaːvagaluː nidde maːDuttaːne*
    he   always   sleep does
    'He always sleeps (is always sleepy)'

Since the situation and viewpoint aspects indicate roughly the same type of distinctions that are denoted by aspectual adverbials (with the latter providing more specific information) we can expect the two to be constraining one another. A telic adverbial, for example, would require the verb to be telic; when used with an atelic verb, it may either force a telic interpretation to the verb, or the sentence would become unacceptable.

Grammars are generally silent on these and other characteristics of aspectual adverbials; the topic clearly needs to be studied in detail.

Category of Mood

4.1 Introduction

Mood is concerned with the actuality of an event. There are three different parameters that are used by languages while establishing modal distinctions; these are the following:

(i)   a speaker's opinion or *judgement* regarding the actuality of an event,

(ii)   kind of *evidence* that is available for the speaker to form this judgement, and

(iii) kind of *need* or requirement which forces the speaker (or someone else) to get involved in an event (or to carry out an action).

The first two parameters establish "epistemic" (knowledge-based) moods and the third one establishes "deontic" (action-based) moods (see Palmer 1986: 51, 96). In addition to these three types, the category of mood is generally considered to include illocutionary forces like interrogatives (an extension of epistemic moods) and imperatives (an extension of deontic moods).

Judgements can be of different types depending upon the confidence that the speaker has in asserting the occurrence of an event. He may consider the event to be real or unreal (imaginary or hypothetical) and further, he may be sure or unsure about his own judgement in this regard. Some of the languages use distinct mood markers in order to represent these distinctions in the speaker's assessment of the reality of an event. Evidentials, on the other hand, represent the various bases that a speaker can use for specifying the reality of an event. He might have actually observed the event or experienced it through his own senses. Alternatively, someone else might have observed it and has reported it to the speaker. It is also possible for the event to be inferred or deduced by the speaker, or derived through induction (as in the case of generic or habitual statements).

These and other similar distinctions in the evidentiality of a statement can be represented in a language with the help of different modal suffixes.

We may consider the distinction between judgements and evidentials as correlatable with the distinction between deictic and non-deictic tenses, or between viewpoint and situation aspects that we have encountered in the previous two chapters. All these three involve basically a distinction between the speaker's own assessment of the situation on the one hand and distinctions occurring in the situations themselves on the other.

Deontic mood is rather different from these two types of moods in that it refers to different degrees of external or internal compulsion which forces the event to take place. It is modal in the sense that the stronger the compulsion, the more certain one would be that the event has taken place or is going to take place. This relationship between deontic and epistemic (judgement) moods gets reflected in the fact that in several languages like English, German, and also the Dravidian languages like Kannada, the same form is used ambiguously for denoting both deontic as well as epistemic moods. There are also languages (like Ladakhi), however, in which these two types of moods are represented by distinct markers (see 4.3 below).

The inclusion of interrogatives in the modal category results from the fact that a speaker uses an interrogative sentence in order to augment or strengthen his knowledge about an event; they are therefore closely related to epistemic moods like doubt and uncertainty. Imperatives, on the other hand, are modal in the sense that they form part of the external compulsions that force an event to take place, and are therefore closely related to deontic moods. Languages with a complex modal system show different interrogative and imperative markers indicating different kinds of questions and commands.

4.2   Epistemic mood

Judgements and evidentials are clearly quite distinct from one another, but they are also related in that the latter form the basis for the former. That is, one judges an event to be real or unreal, certain, definite, probable or improbable on the basis of the kind of evidence that he has about it, such as, for example, whether he has actually seen or experienced it, or only heard about it, the kind of source on the basis of which it has been reported, etc. Languages may use different systems of markers for denoting these two types of moods (in which

case they may even allow the two types of markers to occur together), or they may include both of them under a single system of markers.

As mentioned earlier, it is also possible to regard judgements and evidentials as two different facets of epistemic mood in the sense that judgements represent the speaker's own evaluation of a situation and evidentials represent the external evidence (or basis) for an evaluation That is, we may regard judgements as "deictic" and evidentials as "non-deictic". This relatedness between judgements and evidentials makes it possible for languages to give prominence either to the notion of judgement or to that of evidentiality in their verbal system. There are languages like Mao Naga in which judgement (and the realis-irrealis distinction that is based upon it) plays the most prominent role, whereas there are also languages like Tuyuca in which evidentiality plays the central role. Languages may combine the two together into a more complex system of epistemic mood as well.

4.2.1   *Realis and irrealis*

The most important distinction in the category of mood is the epistemic one between realis and irrealis. It represents a distinction between events that are portrayed as actualised or as actually occurring on the one hand, and the ones that are portrayed as still within the realm of thought, on the other (Mithun 1995). It is comparable to the past/non-past distinction in the category of tense, and the perfective-imperfective distinction in the category of aspect. This comparability derives primarily from the fact that there are several languages in which the realis-irrealis distinction functions as the most fundamental distinction, dividing the whole system of verbal forms into two different groups, just as the past/non-past distinction, and also the perfective-imperfective distinction, do in several other languages. There is also a correlation between these three types of distinctions in the sense that past and perfective events tend to be associated with realis events whereas future and imperfective events tend to be associated with irrealis events.

We can exemplify the occurrence of the realis-irrealis distinction as the central one in a language with the help of Chalcatongo Mixtec, described by Macaulay (1996). Verbs of this language have two distinct stems, called realis and potential. The former is used to describe actions that are underway at the time of the speech event, are habitual, or have already been finished at the time of speaking. This realis stem occurs in progressive, habitual and stative forms as

well. It is also used with the completive suffix *ni* to denote completed present or future events. The latter (potential stem), on the other hand, is used to express future time, imperative, counterfactual, conditional and various other modal senses. We may regard the latter as the irrealis stem.

The two types of stems (realis and potential) differ (i) segmentally, (ii) by tone, or (iii) segmentally and by tone; a few of them involve suppletion; about half the number of verbs, however, have identical forms for these stems. The following pairs of forms exemplify this distinction and the sentences which follow them exemplify their usage:

Realis	Potential	Gloss
kaku	*kákú*	'be born'
xasú	*kásu*	'close'
xítú	*kútú*	'work in the fields'
xátù	*kuxátú*	'be spicy'
caa	*caa*	'write'
xíʔi	*kuú*	'die'

(1) a. *rúʔú kee=rí nduči*
          I eat (POTENTIAL)=1 beans
          'I will eat beans'

     b. *rúʔú žee=rí nduči=rí*
          I eat (REALIS)=1 bean=1
          'I am eating / I eat my beans'

     c. *rúʔú kútú=rí=nu*   *baʔá ...*
          I   work (POTENTIAL)=1=CONERFACTUAL but
          'I was supposed to work, but ...'

A basic distinction between realis and irrealis moods is also reported to occur in the verbal forms of Muna, an Austronesian language, belonging to the Western Malayo-Polinesian branch (Van der Berg 1989). The most important difference between the two types of forms is that they take different sets of subject markers that are prefixed to the verb. In the case of some verbs, there is also an infix *um* occurring in the irrealis forms, which distinguishes them from realis forms. There are several morphophonemic alternations that are connected with the use of this infix. The following pairs of forms exemplify this realis-irrealis modal distinction:

Realis	Irrealis	Gloss (of irrealis)
a-kula	*a-k-um-ala*	'I will go'
no-horo	*a-h-um-oro*	'It will fly'
a-gholi	*ae-gholi*	'I will buy'
de-basa	*dae-basa*	'We will read'
omo-gharo	*omo-gharo*	'You will be hungry'
no-lodo	*nao-lodo*	'He will sleep'

The realis forms can refer to either past or present events. They can also occur with the futurity suffix *ho* (this suffix can only occur with realis forms). Irrealis forms, on the other hand, can refer to the future or can express a wish, desire or intention. They are also used obligatorily in negative clauses, i.e., in the presence of negators such as *miina* 'not', *miina-ho* 'not yet' and *pa* 'will not'.

The realis-irrealis distinction is very different from the past/non-past distinction, even though realis forms are generally translated as past (or present) and irrealis forms as future. In fact, most of the earlier grammars (and some recent ones too) wrongly describe these modal forms as showing a past-present-future (or future/non-future) tense distinction. For example, verbal forms of Mao Naga are described by Giridhar (1994) as showing the distinctions of past, present and future tenses, but a closer examination reveals that the basic distinction occurring in these forms is between realis and irrealis moods. We can exemplify the basic contrast (which involves the use of the irrealis marker *le* contrasting with the absence of any marker) with the help of the following sentences:

(2) a. *ai idu   niyi ni-e*
         I yesterday you see-PRED
         'I saw you yesterday'

     b. *ai izo   ocü   vuta le*
         I today home go   IRREALIS
         'I will go home today'

(a) Verbs which do not occur with the marker *le* can indicate past or present meanings, as shown in the following contexts of their usage:

(i) Verbs expressive of mental or physical states, physical or personality attributes, and of emotional disposition are ambiguous between past and present meanings when used without the irrealis marker *le* (Giridhar 1994: 285). Example:

(3)   *pfo zhü-e*
       he good-PRED
       (i)   'He is good'
       (ii) 'He was good'

(ii) There is a habitual marker *we*, which can occur with non-stative verbs, but the habitual meaning can ambiguously be past or present; it does not occur with the irrealis marker *le* (Giridhar 1994: 287, 289):

(4)   a.   *pfano pfo pfüyi   sokhro-we*
             he   his mother help-HAB
             'He helps his mother'
       b.   *imemüi deni   ipre.so   to-we*
             Maos   formerly elephant.meat eat-HAB
             'Maos used to eat elephant meat a long time back'

(iii) There is also a progressive or durative marker *e*, which denotes past or present progressive meaning (when not accompanied by *le*); further, when preceded by *ta* 'start', it indicates the future (imminent) meaning. That is, the future connotation is obtained even in the absence of the "future" marker *le* when the speaker is sure about the occurrence of the event. Examples (Giridhar 1994: 292, 297):

(5)   a.   *pfo vu-e*
             he come-DUR
             (i)   'He is coming'
             (ii) 'He was coming'
       b.   *ata ho   ta-e*
             we field start-DUR
             'We are about to go to the field'
       c.   *alemo avu   ta-e*
             Alemo meals start-DUR
             'Alemo is about to take meals'

(b) The marker *le*, on the other hand, generally denotes future meaning, but in the following usages it has other meanings which appear to indicate that basically it is an irrealis marker.

(i) It can occur with the affix *Ti* 'relevance' in order to indicate a thwarted (past) desiderative. Examples (Giridhar 1994: 310):

(7)   a.   *alemono ovo hrü le-Ti-e*
             Alemo   pig buy IRREALIS-RELEVANT-PRED
             'Alemo wanted to buy a pig' (but could not as there was no
             money)

       b.   *kaikhono niyi mono le-Ti-e*
             Kaikho   you help IRREALIS-RELEVANT-PRED
             'Kaikho wanted to help you (but he wil not be here)'

(ii) There is a suffix *abüi* denoting individual choice which can occur with
le to denote not only a future choice but also a thwarted past choice. Examples
(Giridhar 1994: 317, 322):

(7)   a.   *ai sho-abüi   le*
             I   drink-choice IRREALIS
             'I choose to drink (if permitted)'

       b.   *ai iduti   ta-büi   le   ana a pfono cü   he*
             I yesterday go-choose IRREALIS but my father home not
             ho-Tie
             be-RELEVANT
             'I would have gone yesterday but my father was not at home'

(iii) The marker *le* can also be used to denote an inference (about a past or
present event) which is based upon non-direct or non-reliable evidence in
contrast to *ahi* which represents direct and infallible inference (both these occur
with the marker *oTi* 'irrelevance'). Giridhar (1994: 335) considers this to be a
distinct inferential marker (in view of the fact that the marker *le* is considered by
him to be a "future" tense marker), but if we regard all these usages as repre-
senting an irrealis marker, this would not be necessary. Examples (Giridhar
1994: 337):

(8)   a.   *pfono idu   rü-oTi   le*
             he   yesterday wrote-IRRELEVANT IRREALIS
             'He must have written yesterday'

       b   *pfo ico   avuo bu le*
             he now meal take IRREALIS
             'He must be taking his meal now'

(9)   a.   *pfono idu   rü-oTi-ahi*
             he   yesterday write-IRRELEVANT-INFERENCE
             'He must have written yesterday'

  b.   *pfono idu   rü-oTi   le*
       he   yesterday write-IRRELEVANT IRREALIS
       'He has probably written yesterday'

4.2.2   *Judgements and evidentials*

A distinction is generally made between judgements and evidentials with the former denoting a speaker's own assessment about the occurrence of an event (that is, whether the occurrence is doubtful, probable, definite or certain) and the latter denoting the basis that the speaker has for claiming that the event has occurred (or is going to take place). In the case of familiar languages, we may regard the so-called "indicative" or declarative sentences to be representing the highest degree of certainty as far as the hierarchy of judgements is concerned, but rather surprisingly, linguists who write about modal distinctions occurring in familiar languages like English generally do not consider indicative sentences to be "modal".

It is generally claimed that the modal distinctions of judgement are more numerous in the future tense (or irrealis mood) than in the past or present tense (or realis mood). On the other hand, evidentials appear to show a greater number of distinctions in the realis mood (especially in the past tense) than in the irrealis mood. That is, judgements and evidentials appear to complement one another in the future/non-future or irrealis-realis dichotomy. However, they are not opposed to one another, as it is quite possible to combine the two in the same verbal form.

Distinctions of judgement can be exemplified with the help of the following sentences of Mao Naga (Giridhar 1994: 308) in which the irrealis mood is further subdivided into (i) doubt, denoted by the marker *amolo,* (ii) definiteness, denoted by the marker *Ti* which is followed by the irrealis suffix *le* and (iii) certainty, denoted by the marker *li* which is also followed by the irrealis marker *le.* Examples:

  (10)   a.   *pfo ta-amolo-e*
             he go-may-PRED
             'He may go'
         b.   *pfohi thi-ti   le*
             he   die-sure IRREALIS
             'He will surely die'

c.   *pfohi thi-li   le*
     he   die-certain IRREALIS
     'He will certainly die'

The definiteness marker differs from the certainty marker in that the former
(*Ti*) can be negated but the latter cannot. Examples:

d.   *pfohi thi-Ti   le   moe*
     he   die-sure IRREALIS not
     'Surely, he will not die'

According to Barnes (1984), Tuyuca, a Tucanoan language spoken in
Columbia and Brazil, has evidentials as a mendatory feature of the independent
verb. Speakers must indicate the evidence on the basis of which they obtained
the information for producing an utterance in one of the following five distinct
ways by using the relevant suffixes: (i) visually, (ii) through a sense other than
visual, (iii) through evidence of the state or event, (iv) by being told about the
state or event, or (v) by assuming what happened. The sentences given below
exemplify these five evidentiality distinctions; they have the common meaning
'He played soccer', but in addition to this, they also have the meanings specified
in front of them, which are denoted by the evidential suffixes (Barnes 1984):

(11) a.   Visual   *díga apé-wi*   (I saw him play)
      b.   Non-visual   *díga apé-ti*   (I heard the game and him)
      c.   Apparent   *díga apé-yi*   (I have evidence, like his foot-
                                         prints)
      d.   Second-hand   *díga apé-yigi* (Someone told me)
      e.   Assumed   *díga apé-hiyi* (It is reasonable to assume that
                                         he played)

The evidential suffixes given above are used in the past tense. There are two
other sets of suffixes, of which one is used in the present tense and the other one
in the future. Barnes notes, however, that in the present tense, the second-hand
evidential does not occur and the apparent evidential occurs rarely (it does not
occur in first person). Further, a speaker cannot use the assumed evidential when
referring to himself in the present tense. Another interesting point, noted by
Barnes, is that the future paradigm is distinct from past and present paradigms
only for assumed evidential, and even this appears to have derived from an
earlier compound construction.

Ladakhi, another Tibeto-Burman language (belonging to the Central Tibetan

group), also makes several distinctions in the epistemic mood, involving both judgements as well as evidentials. It appears to give greater prominence to evidentials than to judgements. According to Koshal (1979: 193), verbal bases of Ladakhi can take any of the following mood suffixes:

Epistemic mood distinctions:
ət	reported event
duk, ruk	observed event
ərək	experienced event
ok	inferred event
cen	probable event
ənok	generic event

Notice that the first four suffixes are primarily evidentials in nature and only the last two can be regarded as involving judgement. Examples (Koshal 1979: 193):

(12) a.   *pəlldən-ni   spe-čhə   sill-ət*
           Paldan-ERG book-DIR read-REPORTIVE
           'Paldan reads a book (a report)'

      b.   *kho-e   lčəŋ-mə   čəd-duk*
           he-ERG tree-DIE cut-OBSERVED
           'He cuts the tree (direct observation)'

      c.   *kho čhə-ərək*
           he go-EXPERIENTIAL
           'He goes (speaker's feeling)'

      d.   *kho-ə   zur-mo   sənte duk ši-ok*
           he-DAT pain-DIR very be die-INFERENCE
           'He will die (because) he is very sick'

      e.   *kho-ə   thore   ŋe ə-čo   thuk-cen*
           he-ERG tomorrow my brother-DIR meet-may
           'He is likely to meet my brother tomorrow'

      f.   *ñi-mə   zəktəŋ šər-ne   šərr-ə-nok*
           sun-DIE daily east-ABL rise-GENERIC
           'The sun rises daily in the east (generic)'

   Ladakhi also distinguishes between different types of inferential statements by using the suffix *thig* which is followed by one of the following suffixes, which specify the type of inference that is being used:

Inference distinctions

- *rək* inferred from sounds or from habitual occurrences
- *yot* inferred from observations not remembered correctly
- *soŋ* inferred from unobserved partial or vague knowledge
- *duk* guessed, as for example about events that occurred at a distance and hence cannot be seen clearly

Examples:

(13) a. *dolmə yoŋ-thig-rək*
Dolma come-INFER-SOUND
'Dolma is coming (a guess made by hearing footsteps, voice, etc.)'

b. *khoe ŋe kəne pene khyer-thig-yot*
he me from money take-INFER-OBSERVED
'He might have taken money from me'

c. *kho i-khəŋpe nəŋŋə duk-thik-son*
he this-house in live-INFER-UNOBSERVED
'He might have lived in this house'

d. *ə-pumo rdemo yot-thig-duk*
that-girl beautiful be-INFER-GUESSED
'That girl might be beautiful'

There are also two narrative suffixes, *kek* and *tshuk*, which can be added to the reportive form. The latter (*tshuk*), can also be used with other verbal forms and has the narrative sense in the case of third person subjects and of surprise and continuity in the case of second person subjects. In the case of first person subjects, however, it denotes the speaker's surprise at his stupidity or foolishness in attempting to do (or doing) something. Examples (Koshal 1979: 206, 217):

(14) *ləməgunni skurim səll-ət-kək*
monks worship offer-REPORTIVE-NARRATIVE
'Monks offered worship'

(15) *khyorəŋ wərənəsie chə-ət-tshuk*
you (HON) varanasi go-REPORTIVE-NARRATIVE
'So! You are going to Varanasi!'

(16)   *khoe šiŋ   šəggin-yot-pin- huk*
       he   wood split-be-PAST-NARRATIVE
       'He was splitting wood'

(17)   *ŋe chəŋ   thuŋŋin-yot- huk*
       I   chang drink-be-NARRATIVE
       'I was drinking chang (local alcohol) (without knowing that it was wrong to do so)'

In addition to the suffixes mentioned above, Ladakhi makes use of a two-fold modal distinction by using the suffix *yin* for denoting future ("definite") tense and *do* for denoting the indefinite future tense. The latter suffix can also be used after the "definite" future form in order to convert it into an indefinite future (Koshal 1979: 201). Examples:

(18)   a.   *ŋə thore   əbə-ə   yige Di-yin*
            I   tomorrow father-DAT letter write-FUT
            'I will write a letter to (my) father tomorrow'

       b.   *kho thore   yon-Do*
            he   tomorrow come-may
            'He may come tomorrow'

       c.   *ə-botkhənbo ewəŋ   yin-Do*
            that-caller   Tshewang be-must
            'That caller must be Tshewang'

       d.   *ne khyorəŋŋə yige Di-yin-Do*
            I   you   letter write-FUT-may
            'I may write a letter to you'

Ladakhi also has different copula verbs for denoting different epistemic moods. Some of these copula verbs are derivationally related to the modal suffixes described earlier. The following set of copulas may be noted here (Koshal 1979: 185–9):

Different copula verbs for different moods:
    yin   speaker is making a simple statement without any modal implications
    yot   speaker has a definite knowledge (direct or indirect)
    rek   speaker is denoting an experience or feeling like pain, or taste
    duk   speaker is denoting something that he has seen or read

Notice, once again, that the distinctions are primarily evidential in nature. Examples:

(19) a. *ŋə məg-mi   yin*
          I soldier-DIR be (simple statement)
          'I am a soldier'

     b. *khoŋ-ŋə pe-ne   yot*
          he-DAT money-DIR be (definite knowledge)
          'he has money'

     c. *ŋə go-ə   zur-mo   rək*
          I head-DAT pain-DIR be (experience)
          'I have a headache'

     d. *pu-mo rdemo   duk*
          girl-DIR beautiful be (seen)
          'The girl is beautiful'

Some of these copula verbs can take the past suffix *pin*, generic suffix *nok*, narrative suffix *kək*, and future (probable) suffix *Do* in order to indicate the relevant additional meaning distinctions. Examples:

(20) a. *su   yin-Do*
          who be-FUT (probable)
          'Who must he be?'

     b. *kho nəkpo yot-pin*
          he   black be-PAST
          'He was black (definite knowledge)'

4.3 Deontic Mood

The difference between epistemic and deontic moods is that the former indicates the kind of opinion (or knowledge) that a speaker has regarding the actuality of an event (or the basis for such an opinion or knowledge), whereas the latter indicates the kind of compulsion which makes it possible or necessary for an event to take place. This compulsion may be internal to one or more of the participants of the event, or external to them; that is, internal notions like ability, willingness and desire and external notions like necessity, request and order can be brought under the deontic mood.

As I had mentioned earlier, there is an interesting correlation between

judgement (epistemic mood) and deontic mood, in that the stronger the compulsion for making an event to take place, the more certain that a speaker can be about the actuality of that event. It is apparently because of this correlation that there are several languages in which the same set of forms are used ambiguously either as judgements or as deontic expressions. For example, English *may, should* and *must* can be interpreted either as denoting epistemic notions of possibility, probability and necessity respectively, or deontic notions of permission, obligation and requirement respectively, as shown in the following sentences (Palmer 1986: 18):

(21)   *He may come tomorrow.*
        (i)   'Perhaps he will come tomorrow'
        (ii)   'He is permitted to come tomorrow'

(22)   *The book should be on the shelf.*
        (i)   'The book probably is on the shelf'
        (ii)   'The proper place for the book is the shelf'

(23)   *He must be in his office.*
        (i)   'I am certain that he is in his office'
        (ii)   'He is obliged to be in his office'

However, there are several other languages in which the representations of these two concepts are quite different from one another. In Ladakhi, for example, there are four different sets of suffixes that are used for denoting different deontic distinctions; these are quite distinct from the epistemic and evidential suffixes that I have described in the previous section (4.2.2). Koshal (1979: 228) gives the following deontic suffixes (called by her as "secondary" modal suffixes, which include certain additional ones like "completive" which are aspectual rather than modal) for Ladakhi:

Deontic suffixes:

thub, ñən	can or be able to do something
gos	wish to do something; should or need to do something
neŋdig	allowed to do something
nəŋčhog	allowed to do something
phog	compelled (though extremely unwilling) to do something

The following sentences exemplify the use of some of these deontic suffixes in Ladakhi (Koshal 1979: 227–37):

(24) a. *khoə spečhə Di-thubb-ət*
      he   book   write-can-REPORTIVE
      'He can write a book'

   b. *nəə yigežik Di-goss-ət*
      I   letter   write-wish-REPORTIVE
      (i) 'I want to write a letter'
      (ii) 'I should write a letter'

   c. *kərgil-pəgun led.əkslə ləmyig-metpə   čhə-nəndigg-ət*
      Kargil-people Ladakh permit-without go-allow-REPORTIVE
      'People of Kargil are allowed to go to Ladakh without a permit'

   d. *nəə čə coə-phogg-ət*
      I   tea do-COMPULSIVE-REPORTIVE
      'I had to prepare tea'

Ladakhi also allows some of these deontic suffixes to occur with epistemic suffixes described in the previous section. Example:

(25) *rigzinlə riə   dzəks-thub-gos-duk*
     Rigzin mountain climb-can-wish-OBSERVED
     'Rigzin can desire to climb the mountain'

In addition to these deontic suffixes, Ladakhi also has a benefactive form, which, however, is formally identical with the honorific imperative form. It is derived by adding the suffix *sik* to the verbal stem (Koshal 1979). Examples:

(26) a. *nəə thop-šik*
      I   get-BENEFACTIVE
      'May I get (something)!'

   b. *khyorəŋŋi tshe-riŋ-šik*
      you (GEN) life-long-BENEFACTIVE
      'May you have a long life!'

Mao Naga has a set of deontic mood markers, which are also quite distinct from the epistemic mood markers that I have described in the previous section. It uses the particle *pha* (which is added to the participial form of the verb) for denoting obligation, which is quite different from the marker for certainty, namely *li* (see 4.2.2). Examples (Giridhar 1994: 306):

(27) a. *ocü korü   pha-e*
          rain rain (PARTICIPLE) ought-PRED
          'It ought to rain'
      b. *ni koto   pha-e*
          you eat (PARTICIPLE) ought-PRED
          'You ought to eat'

Mao Naga uses the marker *büi* for denoting the meaning of permission, which is different from the marker for possibility, namely *amolo*, noted earlier (see 4.2.2). The permissive suffix also indicates that the person concerned may carry out the action if he chooses to. When used with the first person subject, it provides only this latter meaning. Examples (Giridhar 1994:317):

(28) a. *cakho cahrano vu-büi   le*
          Chakho afternoon come-allow IRREALIS
          'Chakho is permitted to come in the afternoon, if he chooses to'
      b. *ai ta büi   le*
          I go choose IRREALIS
          'I choose (and determined) to go'

There is, in addition, a marker for suggestion, namely *shie*, which is used only with first person inclusive subjects. Example:

(29) *pfoyi da le   shie*
      him   beat IRREALIS let
      'Let us beat him'

The relevance suffix *Ti*, which denotes a resultant state (as shown in (30a) below), has the function of indicating the intention of doing something, when used with the irrealis suffix (30b). Examples:

(30) a. *cühi pra-Ti-e*
          sun rise-RELEVANCE-PRED
          'The sun has risen'
      b. *lokho lokha hihi pfo-Ti   le*
          Lokho bag   this take-RELEVANCE IRREALIS
          'Lokho intends to take this bag'

There are two abilitative markers, namely *losü* and *lozhü*, which differ from one another in that the former indicates intrinsic ability and the latter extrinsic ability. The following sentences exemplify this distinction:

(31) a. *a napüihi oloso losü-e*
my daughter sing able (INTRINSIC)-PRED
'My daughter can sing (i.e. she has the physical or physiologi-cal ability to sing)'

b. *a napüihi oloso lozhü-e*
my daughter sing able (EXTRINSIC)-PRED
'My daughter can sing (i.e. correctly, effectively, before a huge audience, etc.)'

4.4 Epistemic moods and interrogatives

As I had mentioned earlier, there is a close affinity between epistemic moods and interrogatives, in that a speaker generally uses the latter in order to obtain information that can help him to use a stronger (or more definite) variety of epistemic mood. However, the two are also quite different from one another and this difference gets reflected in the fact that languages generally have distinct systems of representation for interrogatives and epistemic mood distinctions.

There are two main types of interrogative sentences that occur in natural languages, called polar (or *yes–no*) questions and content (or *wh-*) questions. The former are used for obtaining information regarding a proposition as a whole (i.e. to find out whether a given proposition is correct or incorrect), whereas the latter are used for obtaining information regarding a particular constituent (an argu-ment, an adjective, an adverb, etc.) of a proposition. Examples:

(32) a. *Will he come tomorrow?*
b. *When will he come?*

Notice that (32a), a polar question, would be used in order to find out the correctness of the proposition *he will come tomorrow,* whereas (32b), a content question, would be used in order to get information about the identity of the temporal adverbial (*tomorrow*) which is not known to the speaker. The *wh*-word *when* is used in (32b) in order to indicate the entity that needs to be identified by the addressee.

Linguists generally consider the distinction between these two types of interrogatives to be represented by having a sentential interrogative marker (an affix, intonation or word order change) in the former case, and by having a *wh*-word in the latter case. That is, content questions are generally considered to

have a "question word" (or an "interrogative pronoun") as the question marker in them. However, in the case of several Tibeto-Burman languages (and also in many others) the two types of interrogative sentences are differentiated from one another by the use of distinct sets of sentential affixes rather than by the presence of question words. There is therefore a need to regard the so-called interrogative pronouns occurring in the content questions of these languages as merely "indefinite" pronouns and not as "question" words, as I argue in Bhat (1989).

For example, Sema, a Naga language, has a set of three different particles that are used for deriving polar questions (namely *kesya* for questioning persons of low status, *ma* for questioning persons of respect, and *kema* used in neutral situations). These particles are contrasted with the particle *kyá,* which is used for deriving constituent questions. The so-called interrogative pronouns occurring in these latter sentences have only the function of denoting the entity that needs to be identified. Examples (Sridhar 1980: 180):

(33) a. *noye pa ithi   anì   kesya*
          you he know PROG Q
          'Do you know him?'
      b   *paye kyùsi anì   kyá*
          he   what do (PROG) Q
          'What is he doing?'

Khezha, another Tibeto-Burman language, also differentiates between polar questions and content questions by using two distinct sets of suffixes, each making several modal distinctions. Content questions contain an "interrogative" pronoun in addition to the question marker, but the pronoun has only the function of indicating the entity that needs to be identified. Kapfo (1993: 216, personal communication) lists the following markers that can be used in polar questions for representing different types of polar questions in Khezha:

díre, you	speaker already knows the proposition to be correct and expects it to be confirmed
ya, nì	speaker has reliable information and is asking for confirmation
níe	speaker presumes the proposition to be correct but is uncertain about it
yo	speaker is amazed by the proposition and is asking for reaffirmation
momí, lè	speaker has heard some unusual rumour and is asking for verification

(34) a. *nò merí-e   nì-à-díre*
          you Mary-ACC love-REALIS-Q
          'You are in love with Mary, isn't it?'

      b. *nò mhechə-à-ya*
          you work-REALIS-Q
          'Are you working?'

      c. *àpfə wò-dà-níe*
          father come-PERFECT-Q
          'Father has (probably) already come, hasn't he?'

      d. *ì-zò   lésə-à-momí*
          your-mother sick-REALIS-Q
          'Is your mother ill?'

      e. *nò-nə   merí-e   ni-à-yo*
          you-NOM Mary-ACC love-REALIS-Q
          'So, you are in love with Mary?' (I can't believe it!)

In addition to these, the negative marker *mo* can also be used as a question marker to denote uncertainty. Example:

(34) f. *nò mèlhə-à-mo*
          you hungry-REALIS-NEG
          'You seem to be hungry, aren't you?'

None of these question markers can be used in content questions, i.e. questions that request for information about a particular entity in a sentence. Khezha uses an entirely different set of question markers, namely the following, for deriving different types of content questions (Kapfo, 1993: 211, personal communication):

ro	used in any situation
lé	used by adults while questioning children
šè	used for asking the addressee to repeat what he said earlier
dí, día, dèi	used to ask the addressee to choose from one of the alternatives
yó	rhetorical question where the speaker does not expect the addressee to give an answer
yá, lá	used when the speaker is not bothered to have the answer

Examples:

(36) a. *pù-nə   ditshəké wo   ro*
          he-NOM when   come Q
          'When did he come?'

      b. *pù-nə   ditshəké wo   lé*
          he-NOM when   come Q
          'When did he come?' (used with children)

      c. *pù-nə   ditshəké wo   šè*
          he-NOM when   come Q
          'When did he come? (repeat)'

      d. *pù-nə   ditshəké wo   dèi*
          he-NOM when   come Q
          'When did he come?' (choose the alternative)

      e. *pù-nə   ditshəké wo   yó*
          he-NOM when   come Q
          'When did he come?' (I don't care)

None of these question markers, with the exception of *šè* 'repeat', can occur in polar questions. The difference between the two sets of question markers is apparently that the former requests for confirmation of a statement (the suffix or particle is attached to a statement), whereas the latter asks for information about a specific unknown entity. Only the notion of repeating a statement can apparently be associated with either of these two types of questions. Example:

(36) *pù-nə   wo   šè*
      he-NOM come Q
      'Is it true that he came?' (Say that again)

The question (36) may be compared with (35c) given above.

4.5 Deontic moods and imperatives

We may regard imperatives as being closely related to deontic moods in the sense that the imperatives, like some of the deontic moods, represent the external compulsion which forces an event to take place (see 4.3). The stronger the external compulsion, the more likely it is that the event would take place. However, the two are also different from one another in that the imperatives are used directly by a speaker as a speech act in order to get something done by the addressee, whereas the deontic moods are used only indirectly for a similar

purpose. They are only statements and not commands. Both these characteristics of imperatives find representations in their formal expression in natural languages. The fact that they are partly similar to deontic moods is apparently responsible for the occurrence of both of them in the same system of affixes (i.e. in the same paradigm) in some languages, whereas the fact that they are partly different from deontic moods is responsible for the occurrence of the two as distinct systems in other languages. The latter characteristic is shown by languages in which mood is a prominent verbal category.

In the case of Indo-Aryan languages, for example, imperative is part of the subjunctive paradigm. The second person singular form has a zero ending (except in Sindhi) but the plural is the same as the subjunctive. The paradigm also has third person forms, which denote deontic (permissive) meaning. There is also a first person (singular or plural) form in some of them (like Marathi *u* and Konkani *yā*). Some of the languages also make a distinction between present and future imperatives (Masica 1991: 476). The following Marathi sentences exemplify some of these usages (Berntsen and Nimbkar 1982: 86):

(37) a. *həʟu   bol*
          slowly speak (1SG)
          'Speak slowly!'

      b. *həʟu   bol-a*
          slowly speak-2PL
          'Speak slowly!'

(38) a *tula   bəreː vaʈ-o*
         you (DAT) good feel-SUBJ (3SG)
         'May you feel well!'

(39) *amhi tikɖe ja-u   ka*
      we   there go-SUBJ (1PL) Q
      'Should we go there?'

Dravidian languages also include deontic mood markers and imperative markers in a single paradigm. In Tulu, for example, the suffixes *la* 'singular' and *le* 'plural' are attached directly to the verb to derive singular and plural (or honorific singular) imperative forms respectively, whereas the deontic notion of permission is expressed by adding the suffix *aɖɨ* to the verb. This latter form is used both in first and third persons. Examples:

(40)   a.   *aleni iñci barræ pan-le*
             her here come (INF) tell-IMP (2PL)
             'Ask her to come here!'
       b.   *a:li iñci bar-aDi*
             she here come-PERMISSIVE
             'Let her come here!'

On the other hand, the suffix *l* occurs in the third (or first) person permissive marker (*ali*) in certain other Dravidian languages like Kannada. Example:

(41)   *avanu mane-ge   bar-ali*
        he   home-DAT come-PERMISSIVE
        'Let him come home!'

Tibeto-Burman languages are different from these in that they appear to treat deontic moods and imperatives as belonging to distinct systems of suffixes or particles. For example, as I have pointed out earlier (4.3), Mao Naga has the following set of suffixes for denoting different deontic mood distinctions:

pha	ought to
büi	allowed to
shie	let us
ti	wish to
losü	able to (intrinsic)
lozhü	able to (extrinsic)

In contrast to this set of deontic mood markers, Mao Naga has an entirely different set of imperative markers (see Giridhar 1994: 347 for details).

First of all, there is a distinction, in Mao Naga, between (i) movement or transfer towards the speaker and (ii) movement or transfer towards some other person. The imperative marker to be used in the former case is *ka* and the one to be used in the latter case is *ha*. Examples:

(42)   a.   *larübvüsü pi-ka*
             book   give-IMP
             'Give the book (to me)!'
       b.   *larübvüsü pi-ha*
             book   give-IMP
             'Give the book (to someone other than me)!'

The imperative marker *ka* differs from another marker *hi* in being less

brusque and also in being immediate; the former (and also the marker *ha*) cannot occur with temporal adverbials denoting non-immediate time, whereas the latter can. Examples:

(43)   a.   *capüi oca so pi-ka*
                  later tea do give-IMP
                  'Do me tea later!'

        b.   *pfoyi sodu   larübvü pi-ha*
                  him tomorrow book   give-IMP
                  'Give him the book tomorrow!'

        c.   *cahrano   oca sa-hi*
                  afternoon tea do-IMP
                  'Do (some) tea in the afternoon'

However, when used without a temporal adverbial, *hi* also indicates an action that is to be carried out immediately. Examples:

(44)   a.   *oca so-hi*
                  tea do-IMP
                  'Prepare tea (here and now)!'

        b.   *saba bo-hi*
                  shawl wear-IMP
                  'Wear the shawl (here and now)!'

In contrast to the marker *hi*, Mao Naga uses two other markers, namely *o* which is neutral concerning politeness, and *ō* (with mid tone) which is more polite and is more in the nature of a suggestion (Giridhar 1994: 348). Examples:

(45)   a.   *ohi hru-o*
                  eye open-IMP
                  'Open the eyes!'

        b.   *ca sho-ō*
                  tea drink-IMP
                  'Please drink tea!'

The two markers, *hi* and *o* can be combined together to form a blunt order. Example:

(46)   *ni   larü hru-hi-o*
            you book open-IMP-IMP
            'Open your books!'

It can be made polite, however, by adding the verb *pi* 'give' to it.

(47)   *ovo   hiniahi so pi-hio*
        work this   do give-IMP-IMP
        'Please do this work!'

In contrast to the preceding imperative markers, Mao Naga has the marker *lo* which indicates that the action to be performed typically lasts a considerable amount of time, or is a continual or habitual one. Examples:

(48)   a.   *ni   sa   mani-lo*
              you cloth show-IMP
              'Keep showing your cloths!'
        b.   *ni   sa   mani-o*
              you cloth show-IMP
              'show your cloths (once)!'

(49)   a.   *cükhu khu-lo*
              door   close-IMP
              'Keep the door closed; keep closing it whenever you go out!'
        b   *cükhu khu-o*
              door   close-IMP
              'Close the door (once)!'

(50)   *cu-lo*
        run-IMP
        'Keep running!'

The marker *lo* contrasts with another marker *ló* in that the latter indicates that the benefit is for the doer (addressee) only, whereas the former indicates that the benefit is for both (the speaker as well as the addressee). Examples:

(51)   a.   *so-ló*
              do-IMP
              'Do it! (the benefit is yours)'
        b.   *so-lo*
              do-IMP
              'Do it! (the benefit is ours (inclusive))'

We may summarize the system of Mao Naga imperative markers as follows:

I	*ka*	movement or transfer towards the speaker; immediate
	ha	movement or transfer towards some other person; immediate
	hi	can be non-immediate; brusque
II	*o*	neutral regarding politeness
	ō	polite suggestion
	hi-o	blunt order
	pi-hi-o	polite request
III	*lo*	lasting or habitual action; action for mutual benefit
	ló	action to be carried out for one's own benefit

4.6 Use of modal adverbials

We may regard modal adverbials either (i) as replicating the modal information that is provided by the mood markers or (ii) as providing additional information regarding the modal characteristics of the verb. They may replicate mood by establishing a parallel structure, but they can also express additional distinctions and also additional parameters. In the case of languages in which the modal category is not very developed (or grammaticalized) in the verbal system, distinctions of mood will have to be expressed primarily by these modal adverbs.

The contrast (or complementarity) and conflict between moods and modal adverbs, however, has not been studied in the way in which the contrast between tense and temporal adverbs has been studied, and hence one can obtain very little cross-linguistic information about this topic. It clearly needs to be studied carefully in individual languages.

A Typological Study

CHAPTER 5

Basis of the Typology

5.1 Introduction

The foregoing descriptive study of tense, aspect and mood allows us to arrive at an interesting typological observation, namely that languages generally do not give equal prominence to all these three categories. Instead, they select one of them as the basic category and express distinctions connected with it in great detail; they represent the other two categories in lesser detail and further, they use peripheral systems like the use of auxiliaries, or other indirect means, for representing these latter categories. Because of this constraint, we had to use different sets of languages while describing the three categories in the first part of this monograph, namely Kannada, Tulu, Tamil, Quechua, English, Mishmi, etc. for tense, Hindi, Marathi, Gujarati, Mundari, Kiowa, Hmong, Sango, etc. for aspect and Mixtec, Mao Naga, Khezha, Ladakhi, Manam, Tuyuca, etc. for Mood.

This interesting tendency of languages to give prominence to one of the three verbal categories can form the basis of a typological classification, especially because in addition to choosing one of the categories as the most prominent one, languages appear to represent concepts or distinctions that belong to the other two categories *in terms* of their chosen category. For example, the notion of past is represented as a facet (or variety) of realis mood by languages that have chosen mood as the prominent category whereas languages that have chosen aspect as the prominent category represent it as a facet of perfective aspect. Perfect is viewed as involving a combination of realis and irrealis moods in the former case, whereas in the latter case it is viewed as involving a combination of perfective and imperfective. A language that has chosen tense as the prominent category, on the other hand, views it as a combination of past and non-past or present (i.e. as a past event that has present relevance). In order to bring out these and other similar interesting differences that co-occur with the relative prominence that languages attach to different verbal categories, it would

be helpful to classify languages into tense-prominent, aspect-prominent and mood-prominent language types.

Notice, however, that the typological distinction involved here is basically an *idealised* one. Natural languages do not fall into sharply differentiated language types. There are different degrees of prominence that these categories receive in different languages; further, in the case of some languages, two or more of these categories may receive equal prominence, and hence we would not be able to select the most prominent category in them. Languages might also select some other verbal category, such as, for example, the one that makes use of the distinction between deictic and non-deictic categories, and that cuts across the three above-mentioned categories, as the most prominent one. In spite of these drawbacks, however, I believe that the above-mentioned typology would be helpful in arriving at a better understanding of natural languages.

Linguists have found the postulation of idealised languages in this fashion to be extremely helpful in establishing meaningful correlations among cross-linguistic variations. The earliest idealisation of this type that has been highly successful in linguistics is the one between the so-called synthetic, agglutinating and isolating language types. Greenberg's (1966) idealisation of word-order types (into VSO, SVO and SOV), which was later on reduced to VO and OV types (Lehmann 1974), has been helpful in establishing several correlations among cross-linguistic variations. The distinction between configurational and non-configurational languages (Chomsky 1981, Hale 1983) or the one between ergative and accusative languages (Dixon 1979, Plank 1979) also involves the application of a successful idealisation in a similar fashion.

I have put forth in Bhat (1994) an idealised distinction between languages in which adjectives form a distinct category on the one hand, and the ones in which they are identified with nouns, verbs or both on the other. This typological differentiation has formed the basis for the correlation of several interesting cross-linguistic variations for which it also provides motivated explanations. The present typological distinction between aspect-prominent, tense-prominent and mood-prominent languages may therefore be considered as an additional instance of idealisation that is helpful in correlating yet another set of cross-linguistic variations and also, hopefully, in providing explanations to such variations.

5.2 Basis of tense-aspect-mood variation

The variations that have been observed among languages concerning the representation of tense, aspect and mood derive primarily from the fact that the three categories are closely interconnected. Both tense as well as aspect denote temporal notions, with tense indicating the position of an event on a linear time-scale in relation to a reference point, (i.e. whether the event occurs before, simul-taneously or after that reference point), and aspect indicating "the internal tem-poral structure" of an event (Comrie 1976: 6) i.e. whether the event is completed or continuing, beginning or progressing, semelfactive (occurring once) or iterative (or habitual), etc. The two differ from one another in that tense relates an event with an external reference point whereas aspect provides an internal view. The latter does not relate the event to any reference point as such. We can also describe tense as involving a distinction in the time that contains the event and aspect as involving a distinction in the time that is contained in the event (Van Valin 1975: 133). However, the two are also interconnected as both of them deal with the "temporal structure" of the event. This point gets reflected in facts such as, for example, that a completed event (perfective aspect) tends to be past whereas a continuing event (imperfective aspect) tends to be present or future (see Comrie 1976, 1985; Givón 1984; Chung and Timberlake 1985).

Similarly, tense and mood are quite distinct from one another, but are still interconnected. Mood indicates the reality of an event, i.e. the fact as to whether the event's occurrence is a reality or only a possibility. It also refers to the kind of evidence that can be adduced in support of the claim that it occurred (or is going to occur). However, its relatedness with tense is shown by the fact that events which were observed (in the past) or the ones which are being observed (in the present) tend to be associated with realis mood, whereas the ones which were not observed (primarily because they are yet to take place — i.e. the future events) tend to be associated with irrealis mood (see Palmer 1986:208).

It is apparently this interconnectedness of tense, aspect and mood which makes it possible for some languages to choose one of them as the primary notion of their verbal system. The notion of past tense and realis mood can be denoted indirectly by a form which represents primarily the aspectual notion of completion (and vice versa), whereas the notion of future tense or irrealis mood can be denoted by a form whose primary denotation is the aspectual notion of non-completion (and vice versa). Similarly, the temporal notion of simultaneity can have the aspectual notion of continuity as its implication or vice versa. It is

only when these notions need to be combined together in different ways, as for example, when past has to be combined with non-completion (or irrealis), future with completion (or realis), or past with continuity, that the speakers of a language find it necessary to provide distinct representations for these categories.

5.3   Possibility of using alternative categories

The situation, however, has been made somewhat more complex by the fact that there are other related notions which cut across this aspect-tense-mood continuum, or add other dimensions of variability to it. For example, the notion of viewpoint cuts across the whole continuum. It divides the notion of aspect into aktionsart and aspect, with the former providing a set of distinctions among verbal bases and the latter among their inflectional forms. The former is considered to be objective, and the latter subjective (see Platzack 1979: 39; Brinton 1988: 3). Similarly, viewpoint divides tense into non-deictic tense (i.e. having the point of time of some other event as the reference point) and deictic tense (i.e. having the point of time of the utterance or of the speaker as the reference point). We may regard the former as "objective" and the latter "subjective". Viewpoint also divides mood into evidentials (fact-oriented) and judgements (speaker-oriented). The point to be noted here is that it is quite possible for this notion of viewpoint to assume the prominent position in the verbal system of a given language, and to give rise, thereby, to a different set of correlatable characteristics.

Similarly, it is also possible for the spatial notions of location and directionality to assume greater prominence than those of tense, aspect and mood. There are languages like Toba (Klein 1979), for example, in which notions like "coming into view" and "going out of view" give rise, metaphorically, to temporal notions of non-past and past respectively, whereas notions like "in view" and "out of view" give rise to temporal notions of present and non-present respectively. Other languages have also been reported to provide extended temporal connotations to spatial markers (Palmer 1986). Languages that emphasise these spatial notions and derive temporal notions from them in the formation of verbal categories can be expected to manifest an entirely different set of correlatable characteristics.

I propose to set aside these latter possibilities in this study and concentrate upon the characterisation of the three idealised language types mentioned above, namely aspect-prominent, tense-prominent and mood-prominent, in order to make

the study manageable and therefore more explicit. I am assuming that the possible occurrence of these latter type of languages would only give rise to additional language types as far as verbal categories are concerned, and that they would not materially affect the generalizations that I make regarding the three above-mentioned language types.

5.4   Criteria for prominence

The prominence that a category receives in a given language can be determined on the basis of several factors such as degree of grammaticalization, obligatoriness, systematicity (or paradigmatization) and pervasiveness (see Newman 1954: 83, Lehmann 1985). These factors are interconnected in the sense that the category (tense, aspect or mood) which is the most grammaticalized in a given language would turn out to be the most obligatory, systematic and pervasive, and therefore the most *prominent* in that language. It is quite possible, however, to show that these four factors are to a certain extent independent of one another.

The crucial distinction that underlies the notion of grammaticalization is the one between lexical elements ("contentives") and grammatical elements ("function words" or affixes). Several linguists have pointed out the usefulness of differentiating between these two types of elements in natural languages (see, for example, Sapir 1921: 25; Carlson 1983: 70; Givón 1984: 48). Contentives are independent entities that form different "parts of speech" like nouns, verbs, adjectives and adverbs, whereas function words are dependent entities that relate contentives with one another (case markers and agreement markers), or enhance and modify their connotation and of the sentence as a whole (number and gender markers, derivational affixes, tense-aspect-mood markers and other inflectional affixes).

This distinction between lexical and grammatical elements (or between contentives and function words), however, is not sharp and clear-cut. There is a gradation, with some lexical items being more contentive than others, and some function words being more grammatical than others. For example, prepositions or postpositions are generally regarded as forming a part-of-speech (i.e. as contentives) but they are clearly more like case markers than independent nouns and verbs. That is, the latter (nouns and verbs) are more contentive than prepositions. Similarly, inflectional affixes are considered to be more grammatical than derivational affixes (see Kurylowicz 1964: 36), and even among the markers of

verbal categories, affixes are considered to be more grammatical than particles or clitics.

Grammaticalized notions are clearly more important for the grammar of a given language than notions that only get represented by isolated lexical items. While differentiating between inflectional elements and derivational elements, Kurylowicz (1964: 36) points out that the latter are farther removed from sentence-structure and its fundamental oppositions than the former, and that the latter represent marginal levels of the linguistic system; they tend to dissolve into isolated lexical phenomena. Further, lexical elements that get grammaticalized (i.e. changed into inflectional elements) lose their specificity and become generalised, as they need to apply to a whole class of lexical items. And as they become more and more grammaticalized, there is gradual erosion of their lexical meaning into abstract grammatical meaning (Bybee 1985: 16, 137). This also increases their prominence in the grammar.

Lehmann (1985) considers the notion of obligatoriness and also that of paradigmatization to be concomitant notions of grammaticalization. That is, grammaticalized concepts tend to be obligatory and get organised into paradigms; their representations get systematised in the sense that the various sub-components get proper representation in the form of a paradigm. Non-grammatical concepts, on the other hand, do not generally get interrelated in this fashion, even though we do find some amount of systematicity among them, as in the case of kinship terms or terms for body parts. Notice that concepts that are expressed by obligatory forms and classes carry more weight than those contained in optional categories, as pointed out by Newman (1954). In the former case, even the non-use of a marker would be meaningful (called "zero affix" by some linguists), whereas in the latter case, the markers would generally have the function of specifying the relevant meaning; their non-use would not necessarily imply that the meaning is absent.

Pervasiveness is another criterion that can be used while establishing the prominent category in a given language. Concepts that are restricted to a small area in the grammar are less prominent than the ones that have scope over a larger area. This is also the crucial difference between grammaticalized concepts and lexicalized concepts, as pointed out above. This notion of pervasiveness, however, leads us to certain conflicting situations. In the case of some languages, we find the most prominent category being extended from the verbal to other systems like the nominal one as well. For example, the modal category of the verbal system extends to the system of nominal case marking in Kayardild, an

Australian language (Evans 1995). Modal distinctions like actual, potential and hortative are expressed in this language not only by affixes occurring in the verb, but also by case markers; the two show agreement to a certain extent, but the case markers can also express modal notions on their own (see 6.4.4).

We may contrast this "extension" of the most prominent verbal category from the verbal system to non-verbal systems, with a situation in which a language relegates a non-prominent verbal category distinction to non-verbal contexts. For example, some of the mood-prominent and aspect-prominent languages have been reported to relegate the expression of tense distinctions to nominal or adverbial systems. On the other hand, some of the tense-prominent languages have been reported to relegate the expression of modal and aspectual distinctions to non-verbal areas. In Finnish, for example, the perfective-imperfective distinction is expressed by the accusative-dative case distinctions, whereas in Kannada, the modal distinction between internal and external compulsions (for carrying out an event) is expressed by the nominative-dative case distinction (see 7.6.1). These alternative ways of encoding, unlike the "extensions" mentioned earlier, represent the non-prominence of the relevant categories.

By applying these criteria to individual languages, we would be able to classify several of them into one or the other of the three language types mentioned above (i.e. as aspect-prominent, tense-prominent and mood-prominent). However, in view of the fact that all these criteria involve gradations of one kind or another, it would be impossible to have sharp and clear-cut divisions between these classes. Languages would form gradations under each of these three types, with some of them being closer to the idealised language (in each case) than others. Further, there would also be borderline cases in which two (or all the three) categories might appear to be of equal prominence, and in such cases, we would not be able to determine the actual language type to which the language under consideration belongs. That is, the classification is not expected to group, all the languages of the world, exhaustively, into one or the other of these three language types.

5.5 Nature of generalizations

Another drawback of typological studies, which has been frequently commented upon, is that they only allow us to establish general tendencies of language and not rules or formulas that can be stated in very specific terms. Since the studies

are based upon the grammars of several different languages, the data that they make use of are also not very detailed and sometimes not very reliable either. It appears to me, however, that this drawback is unavoidable and reflects the very nature of typological generalizations.

We may compare the distinction between typological studies of the above type and in-depth studies of individual languages with the distinction between areal or satellite pictures of a countryside and an architect's drawings of a town or a dam. A satellite picture would only show patches of colour and vague lines and curves that an expert can interpret as indicating the location of a possible earthquake or deposits of mineral wealth, whereas an architect's drawings would show the locations of various buildings, parks, canals, etc. in very precise terms.

It would be a mistake, however, to discard the former merely on the basis of the fact that they are not as precise and specific as the latter. The two complement one another, with the satellite pictures giving a warning to the builder of dams so that he can avoid certain cites as possible disaster areas. Typological studies and in-depth studies of language can also complement one another in a similar fashion. The general tendencies that one can perceive through a comparison of hundreds of different languages can be helpful in avoiding certain conclusions and in raising certain questions that might not have been raised otherwise while carrying out in-depth studies of individual languages.

The classification of languages into tense-prominent, aspect-prominent and mood-prominent language types helps us to establish several interesting tendencies, as I point out in the following chapters. We are not in a position to state these tendencies in very precise terms at this moment because we do not possess sufficient data on the languages under consideration. But the fact, however, is that even when more data are made available on these languages, it is doubtful that the statements can be changed into very precise rules or formulas; they may continue to be tendencies only, with more convincing data to support them.

5.6   Bias in grammars

The relevance of this typological classification for our understanding of the nature of different languages can be perceived even in the very process of carrying out this study. Notice that much of the grammatical information that we will be using as the basis of this study has been elicited and described with the help of one single language, namely English. Since this language is a tense-

prominent language, and since, as I have suggested earlier, tense-prominent languages view concepts belonging to other verbal categories in terms of the category of tense, much of our data on aspect and mood would be biased by a temporal point of view. It is something like trying to understand the colour of various objects around us while looking at them through a red-coloured glass.

The effect of the medium can sometimes cause a lot of difficulties. For example, English forces us to select a past or non-past (present) verbal form whenever we make a verbal statement. We have already experienced the effect of this obligatoriness of tense while describing the categories of aspect and mood (see 5.2). We had to be satisfied either by a statement in past tense ("aspect indicates how an event occurred") or one in which a statement in past tense is combined with one in nonpast tense ("realis denotes events that were observed or are being observed"), but neither of these is satisfactory as it cannot indicate the fact that aspect and mood are free of the tense distinction. We frequently encounter grammarians who indicate this problem by pointing out that the English translations that they provide are misleading on account of this obligatoriness of tense (see, for example, Kellog 1938, Foster 1985, Li 1991, Refsing 1994), but since descriptions written in English will have to depend upon English for translations, this problem cannot be avoided.

In the case of our present study, on the other hand, we need to consider this problem more seriously because it affects the very basis of our study. For example, is the so-called inseparability of tense and aspect a result of this dependence of our descriptions of aspect upon a tense-prominent language? I suspect that this to be the case to a greater extent than is generally conceded. Similarly, our inability to consider mood as a verbal category that can be as prominent as tense or aspect (see Bybee, Perkins and Pagliuca 1994: 239) is probably a result of our dependence, for the description of mood-prominent languages, upon a tense-prominent language. We may not be able to avoid this dependence, or the interference that results from it, but we can at least try to discount for it. One way of doing this, I think, is to give less importance to similarities that have been noticed between English and the language that has been described in it, and to emphasise differences that have been recorded. Another point is that we must be aware of the fact that distinctions occurring in the translations of forms or sentences do not necessarily indicate distinctions in the languages that are being translated. For example, when a grammarian writes that a particular verbal form can be used to denote past as well as present tense, the language may, in the actual fact, be leaving that distinction unspecified. It

may only be the translator who is forced by his own language to express the meaning either as past or as present.

There are several instances in which a language that was described by a series of grammarians as showing a primary tense distinction, like past, present and future, has been shown to be actually making a primary aspect or mood distinction. This is the case, for example, of several Indo-Aryan languages like Hindi and Marathi, which are described as showing a primary distinction between past and present (or non-past). A careful examination of the use of relevant verbal forms in these languages has indicated that the primary distinction is one of aspect between perfective and imperfective rather than one of tense (see 3.2 and 6.3.1). Li (1991) points out that several scholars have described Hmong as having a past-present-future tense distinction, but a careful examination has revealed that the distinction concerned is actually between perfective and imperfective (progressive). Burmese has been described as showing a future/non-future tense distinction, but Comrie (1985) has shown that the distinction is actually between realis and irrealis (moods). Foster (1985) points out that in the case of Northern Iroquoian languages, modal distinctions have been wrongly described as tense distinctions. Similarly, DeChicchis (1996) argues that in Q'eqchi', the primary distinctions are modal and not temporal as described by earlier scholars (see 6.4 below).

What is interesting to note, in these cases, is that in the majority of such re-interpretations, an earlier tense-based description had to be rewritten as aspect-based or mood-based description. That is, the need to change an earlier description has occurred in almost all cases as a need to remove the bias that has resulted from our use of a tense-prominent language as the language of elicitation and description.

5.7   Need for diachronic considerations

When we compare languages from a typological point of view, we generally tend to regard them as synchronic entities rather than as entities that are involved in a continuous process of change. We therefore fail to realise that some of the characteristics that they show are correlatable with some of their earlier characteristics which they have lost as a result of this diachronic process. That is, a comparison of languages merely from a synchronic point of view would show some of them to be exceptions to a given generalization or tendency, but a

diachronic study would show these to be resulting from the fact that the languages concerned are in a transitional stage. For example, if an aspect-prominent language is in the process of changing into a tense-prominent one, it might show characteristics that conflict with generalizations about both aspect-prominent as well as tense-prominent languages. We can expect it to lose these conflicting characteristics once it has gone out of that particular transitional stage. The fact that we are assigning these characteristics to an idealised language allows us to set aside such transitional stages of languages.

Consider, for example, the case of Manipuri, a Tibeto-Burman language, which appears to be in the process of changing from a mood-prominent state to a tense-prominent one; being a mood-prominent language, it earlier had a large class of state verbs, and its adjectives were indistinguishable from verbs. It now has a basic future/non-future tense distinction. The use of verbal forms showing this distinction does not appear to make it possible to regard it as having a realis-irrealis mood distinction (see Bhat and Ningomba 1997). However, the language continues to have a distinct class of state verbs that includes adjectives. Will this language change further and become a typical tense-prominent language? Or will it remain as an "exceptional" case? We cannot answer this question, but the fact that some of its present characteristics derive from its being a mood-prominent language earlier can be regarded as an explanation for its being an exception to our generalisation.

5.8   Correlatable characteristics

I will be assuming, in the following chapter, that the prominence of tense, aspect and mood respectively are the defining characteristics of tense-prominent, aspect-prominent and mood-prominent language types. I will try to show how languages can be assigned to one or the other of these three language types by examining the relative prominence that one of these categories receive in their grammars. This would be accomplished by examining the four main criteria mentioned above, namely grammaticalization, obligatoriness, systematicity and pervasiveness.

I will be examining other characteristics that appear to be correlatable with this defining characteristic of the present typology in the next (seventh) chapter. Some of these are clearly derivable from the defining characteristic, such as the following:

(i)   The tendency of languages to retain distinctions of the prominent category

to a greater extent than those of other categories when verbs are used in functions other than that of predication (7.2).

(ii)   The tendency to view distinctions belonging to other categories like perfect, future, habitual and negation from the point of view of the prominent category (7.7).

(iii) The tendency to regard the prominent category as the most relevant one for the verb and to encode it as part of the verbal inflection. Also to regard other category distinctions as less relevant to the verb and to encode them through auxiliaries or even through more indirect means like distinctions in case markers (7.6).

Other correlatable characteristics, on the other hand, are not so directly connected with the defining characteristic, but still, we can see that they are related. These include the following:

(iv)   The tendency of tense-prominent languages to use non-verbal encoding for adjectival predicates, and further, to have a very restricted and irregular set of state verbs (7.4).

(v)   The tendency of mood-prominent languages to show a pronominal ergative split and of tense- and aspect-prominent languages to show a temporal or aspectual ergative split (7.3).

(vi)   The tendency of languages to use the prominent category (past, perfective or realis) for foregrounding sequential events in a narration (7.8).

(vii) The tendency of tense-prominent languages to change perfect and progressive forms into past and present tense forms, and of aspect-prominent languages to change the same into perfective and imperfective aspect forms respectively through grammaticalization (7.9).

I believe that these correlatable characteristics provide sufficient justification for the postulation of the typology under consideration.

Classification of Languages

6.1 Introduction

As I have pointed out in the previous chapter, the prominence that languages give to one or the other of the three major verbal categories allows us to classify them into three different idealized types, namely tense-prominent, aspect-prominent and mood-prominent. This classification, however, is not exhaustive, as it does not cover all the languages of the world. It is quite possible for some languages to remain outside this classification either because they give equal prominence to two or more of these categories, or because they select some other verbal category, such as location or viewpoint as the most prominent category. I propose to leave aside these latter types of languages from my study because I do not possess sufficient information to establish additional language types. My assumption is that the occurrence of these additional language types would not materially affect the generalizations that I establish on the basis of the study of the three language types mentioned above.

It may be noted further that the generalizations and tendencies that I postulate here are meant for characterising the three idealised languages; they can be expected to occur in actual languages only to the extent that the languages resemble one or the other of those idealised languages. That is, it is not necessary for any given language to show *all* the characteristics that are being assigned to one of the three idealised languages that are being established here. However, the postulation itself of these generalizations and tendencies is based upon data from actual languages.

6.2 Tense-prominent languages

The defining characteristic of languages belonging to the tense-prominent

language type is the fact that they give greater prominence to tense than to aspect or mood in their grammatical system as a whole. Since the notion of prominence is a relative term, we can expect these languages to form a gradation, with some being closer to the idealised language than others. The criteria that we use for determining the relative prominence of tense in these languages are also such that they allow us to establish similar gradations in each case. For example, tense would be grammaticalized to a greater extent in some of these languages than in others, but in all of them it would be grammaticalized (if at all) to a greater degree than aspect or mood. Similarly, the criteria of obligatoriness, systematicity and pervasiveness would also allow us to establish gradations among these languages.

There are several languages in which tense is more prominent than aspect or mood, as shown by the greater degree of grammaticalization, obligatoriness, systematicity and pervasiveness that is provided by these languages to tense, as compared to aspect or mood. However, as I have pointed out in the previous chapter (see 5.7), descriptions of languages appear to show more number of languages to be tense-prominent than is actually the case because of the fact that, in several instances, aspectual and modal distinctions have been described as tense distinctions. I will therefore only try to establish, in the following sections, the possibility of languages being tense-prominent by showing how a particular set of languages (namely the ones belonging to the Dravidian family, which are the most familiar to me) make tense more prominent than aspect or mood in their grammaticalization, obligatoriness, systematicity and pervasiveness. The actual set of languages that belong to this type (or even to the other two types) can only be determined after a more systematic study of the languages concerned.

6.2.1   *Grammaticalization of tense*

All the languages of the Dravidian family manifest grammaticalization of tense distinctions to a very high degree. This grammaticalization is considered to have taken place in the Proto-Dravidian itself. Subrahmanyam (1971: 237) reconstructs a two-fold past-non-past tense distinction for the proto-language of this family, with the morphs *nt, *tt, *kk and *i representing the past tense, and the morphs *pp, *kk, *tt, *um and *n representing the non-past tense. (Even though two of the morphs representing these tenses, *tt and *kk, are identical in form, the actual verbal forms that contain them are non-identical.) The variants in each case result partly due to phonological conditionings and partly due to the occurrence of

different suffix forms in different subgroups. These suffixes are functional elements to the highest degree and are purely inflectional in their usage. No lexical source for the derivation of these suffixes has been suggested. They are also unconstrained by the type of verbal bases with which they occur (except for the morphophonemic changes that accompany such usages); in fact, the verbs in Dravidian languages are *defined* by their ability to occur with these tense markers.

As far as the past tense marker is concerned, *kk* is found primarily in the North Dravidian languages like Kurukh and Malto. It is possible that the remaining four variants are phonologically conditioned forms of a single past suffix *int*, but the exact nature of this conditioning is not yet clear. The suffix occurs as *t* after monosyllabic roots (with several alternants like *k*, *c*, *t*, *t̲*, *T*, etc. in the daughter languages which clearly result from assimilation) and *nt* or *tt* after other types of roots. In some of the South Dravidian languages like Tamil, this *nt/tt* distinction in the past tense suffix represents an affective/effective distinction (Paramasivam 1979), which might be an innovation. The marker *i* occurs primarily in verbal participles, but certain classes of verbs contain it in finite forms as well in some daughter languages. It also occurs jointly with the dental or nasal morph in some contexts. Much of the complexity that underlies the formation of finite and non-finite verbs in Dravidian languages, either in the form of the suffix or in that of the verbal base, is concerned with the use of this past tense suffix.

Aspect and mood markers that occur in some of the modern Dravidian languages derive from earlier verbal forms that are used as auxiliaries or vectors; they have been grammaticalized rather irregularly and to different degrees in different daughter languages. It is possible, however, that the basic construction involved in their formation, namely the use of a past (prior) converb for deriving aspectual constructions and an infinitive (posterior converb) for deriving modal constructions, was prevalent in the Proto-Dravidian stage itself (see Steever 1983). Thus the fully grammaticalized verbal category that can be assigned to the proto-language is only the past/non-past tense distinction. (It may be noted here that a negative suffix, *aː/*vaː, has also been reconstructed for Proto-Dravidian.)

As I have pointed out in the second chapter, this past/non-past tense distinction continues to be the most grammaticalized verbal category in all the modern Dravidian languages. Most of the complex morphophonemic alternations that are connected with the inflectional forms of the verb occur in the formation of the past stem. In Kannada, for example, non-past stems are formed by adding the suffix *utt* to the base (and the personal suffixes are attached to these stems).

The formation of these non-past stems involves very few morphophonemic changes. The formation of past stems, on the other hand, involves several changes as can be seen from the following Kannada examples. In these examples, I give the past forms, which contain the verbal base (which has undergone different types of changes), followed by the past tense suffix (also showing several changes), and by the III person masculine singular suffix *a*:

Verbal base		Past form	Verbal base		Past form
heːLu	'say'	*heːLi-d-a*	*baru*	'come'	*ban-d-a*
kiːLu	'pluck'	*kit-t-a*	*horu*	'carry'	*hot-t-a*
biːLu	'fall'	*bid-d-a*	*nillu*	'stand'	*nin-t-a*
bare	'write'	*bare-d-a*	*gellu*	'win'	*ged-d-a*
mare	'forget'	*mare-t-a*	*kollu*	'kill'	*kon-d-a*
kuDi	'drink'	*kuDi-d-a*	*nagu*	'laugh'	*nak-k-a*
kali	'learn'	*kali-t-a*	*tinnu*	'eat'	*tin-d-a*
saːyu	'die'	*sat-t-a*	*uNNu*	'dine'	*uN-D-a*
kaːyu	'wait'	*kaː-d-a*	*hoːgu*	'go'	*hoː-d-a*

The past and non-past paradigms are also differentiated from one another in Kannada by the personal suffixes which occur in them, as can be seen from the following paradigms of the verb *hoːgu* 'to go':

	Past paradigm		Non-past paradigm	
	Singular	Plural	Singular	Plural
1	*hoːd-e*	*hoːd-evu*	*hoːgutt-eːne*	*hoːgutt-eːve*
2	*hoːd-i*	*hoːd-iri*	*hoːgutt-i*	*hoːgutt-iːri*
3MASC	*hoːd-a*	*hoːd-aru*	*hoːgutt-aːne*	*hoːgutt-aːre*
FEM	*hoːd-aLu*	,,	*hoːgutt-aːLe*	,,
NEUT	*hoːyi-tu*	*hoːd-uvu*	*hoːgutt-ade*	*hoːgutt-ave*

Aspect and mood markers are less grammaticalized than these tense markers. There is a subjunctive paradigm in some of these languages which, however, shows less number of personal distinctions. Other modal distinctions and also aspect distinctions are denoted by auxiliary (modal or vector) verbs, which are added to the prior and posterior forms of the main verb respectively. Examples from Kannada:

(1)   a.   *iːvattu avanu beːga bar-a-bahudu*
             today he   soon come-POSTERIOR-may
             'He may come soon today'

b.   *ivattu avanu beːga bandu-biɖuttaːne*
today he   soon come-PRIOR-leaves
'He will come (Completive) soon today'

6.2.2   *Obligatoriness of tense*

Tense markers are obligatory in the verbal forms of Dravidian languages in the sense that both finite as well as non-finite verbs necessarily contain a tense marker, which may be either of the deictic or of the non-deictic type. Forms that have been described by grammarians as showing no tense distinction actually show non-deictic tense distinction as I have pointed out in the second chapter (see 2.4.1). Mood and aspect markers, on the other hand, are used only when the speaker desires to specify the relevant meaning or to denote it with emphasis. Consider, for example, the following pair of Kannada sentences:

(2)   a.   *avanu bahuša   naːʟe   bara-bahudu*
he   probably tomorrow come-may
'He may come tomorrow'

b.   *avanu bahuša   naːʟe   baruttaːne*
he   probably tomorrow comes (NON.PAST)
'He will probably come tomorrow'

Both (2a) and (2b) indicate the modal notion of probability but in (2a) the meaning is conveyed by the adverb *bahuša* 'probably' as well as the modal form of the verb *barabahudu* 'may come', whereas in (2b) it is conveyed only by the adverb. The use of the modal verb is not obligatory just as the use of the modal adverb is not obligatory, as in the following sentence:

c.   *avanu naːʟe   bara-bahudu*
he   tomorrow come-may
'He may come tomorrow'

The use of aspect markers is also non-obligatory in a similar fashion; the relevant meaning can be expressed either by an adverbial or by an aspect marker (vector verb) or by both of them together in a sentence. Examples:

(3)   a.   *avanu ellaː baʈʈegaʟann-uː oge-du   haːkida*
he   all   cloths-too   wash-PRIOR put (COMPLETIVE)
'He washed off all the cloths'

    b.   *avanu ella: baTTegaLann-u: ogeda*
          he   all   cloths-too   washed
          'He washed all the cloths'

    c.   *avanu baTTegaLannu oge-du   ha:kida*
          he   cloths   wash-PRIOR put (COMPLETIVE)
          'He washed off (all) the cloths'

Notice that the vector verb *ha:ku* 'put' denoting the aspectual notion of 'completion' occurs along with the adverb *ella:* 'all' (and the emphatic marker *u:* 'too') in (3a), whereas in (3b) the adverb and the emphatic marker occur without the vector verb; in (3c), on the other hand, the vector verb occurs without the adverb and the emphatic marker. All the three sentences convey the aspectual notion of completion.

    Tense markers cannot be left out from a verbal form in this fashion. Their use in finite forms is obligatory as can be seen from the following examples. They must also agree with the adverbials that occur with them in finite sentences.

(4)   a.   *avanu maysu:rin-inda ninne   ban-d-a*
          he   Mysore-INSTR yesterday come-PAST-3MASC:SG
          'He came from Myosre yesterday'

    b.   **avanu maysu:rin-inda ninne   baru-tt-a:ne*
          he   Mysore-INSTR yesterday come-NON.PAST-3MASC:SG
          *'He comes from Mysore yesterday'

    c.   **avanu maysu:rin-inda na:Le   ban-d-a*
          he   Mysore-INSTR tomorrow come-PAST-3MASC:SG
          *'He came from Mysore tomorrow'

    d.   *avanu maysu:rin-inda na:Le   baru-tt-a:ne*
          he   Mysore-INSTR tomorrow come-NON.PAST-3MASC:SG
          'He comes from Mysore tomorrow'

    The language also does not have any verbal forms that are unmarked for tense, i.e. forms that can replace the past and non-past tense forms in finite sentences like (4a–d) given above. There are a few modal verbs which do not show any tense distinction, such as *bahudu* 'may' and *be:ku* 'want', but these have only non-past connotation; they take the auxiliary *iru* 'to be' (as in *bar-a-bahud-ittu* come-PRIOR-may-be-PAST-3NEUT:SG 'should have come') in order to denote past meaning. This is also true of the imperatives, which show tense distinctions in some Dravidian languages like Malto (6.5.6). Even in other languages, such forms can be regarded as temporally "unmarked" rather than

"unspecified" for tense because tense being an obligatory and systematic category in these languages, such unmarked forms can also specify tense. In the case of imperatives (and other forms that are unmarked for tense), we can assume that the forms denote non-past or future tense.

6.2.3   *Systematicity of tense*

The use of tense markers is also systematic as compared to that of mood and aspect markers in these tense-prominent languages. The paradigms that represent tense markers are generally perfectly formed in Dravidian languages; they rarely show any gaps or neutralisations of distinctions. Aspect and mood markers, on the other hand, do not have such perfectly formed paradigms. They either do not have any paradigms as such or have only irregularly formed paradigms. For example, the aspectual constructions in Tamil show a gradation of grammatical-ization with some of them being in the border area in which they can as well be regarded as complex verbs. Even in the case of other constructions, there is always the possibility of having an alternative interpretation for the construction in which the vector verb functions as an independent (main) verb.

This lack of systematicity in the use of aspectual markers in Tamil can be seen in its use of the verb *viTu* 'to leave, release' as a vector verb for denoting perfective meaning. There is no specific "imperfective" vector verb with which this perfective verb can be contrasted; instead, the simple, un-extended or un-compounded verbal form has to function as the unmarked form in contrast with this perfective form. There is, however, a different vector verb, namely *muTi* 'finish' which contrasts with *viTu* in denoting a "completed" action as against the "complete" (perfective) action denoted by *viTu* (Annamalai 1985: 85). Examples:

(5)   a.   *na:ŋkaL ca:ppiTToːm*
           we   ate
           'We ate'

      b.   *na:ŋkaL ca:ppiTTu-viTToːm*
           we   ate-COMPLETE
           'We have eaten'

      c.   *na:ŋkaL ca:ppiTTu-muTittoːm*
           we   ate-finished
           'We finished eating'

Annamalai refers to several interesting constraints that form the basis for a

distinction between these two vector verbs. He suggests that these constraints can be explained as resulting from the fact that *viTu* indicates a complete event (i.e. an event presented as a whole) whereas *muTi* indicates a completed event; the latter emphasises the terminal portion of the event. One interesting constraint which results from this meaning distinction, according to him, is that some other event can be said to have been occurring at the time when the event under consideration is being completed in the case of *muTi* but not in that of *viTu*. Examples (Annamalai 1985: 86):

> (6)   a.   *na:ŋkaL ca:ppiTTu-muTitta-ppo:tu malai peytukoNTiruntatu*
> we   ate-finish-time   rain   raining
> 'It was raining when we finished eating'
>
> b.   **na:ŋkaL ca:ppiTTu-viTTa-ppo:tu malai peytukoNTiruntatu*
> we   ate-complete-time   rain   raining
> *'It was raining when we have eaten'

Similarly, *muTi* can occur with temporal adverbs referring to a specific time (i.e. the time of completion) but *viTu* cannot. Examples:

> (7)   a.   *ni:ŋkaL inta na:valai eppo:tu paTittu muTitti:rkaL*
> you   this novel   when   read   finished
> 'When did you finish reading this novel?'
>
> b.   **ni:ŋkaL inta na:valai eppo:tu paTittu viTTi:rkaL*
> you   this novel   when   read   completed

However, *viTu*, even though denoting a complete event, is not constrained by tense or mood distinctions; it can occur in the future (as well as in the past) and also with the modal notions of probability or certainty. Examples:

> (8)   a.   *appa: na:Laikku perumpa:lum vantu-viTu-va:r*
> father tomorrow most.probably come-complete-FUT
> 'Father will most probably return tomorrow'
>
> b.   *appa: na:Laikku niccayama:ka vantu-viTu-va:r*
> father tomorrow definitely   come-complete-FUT
> 'Father will definitely come tomorrow'

When used with the present (non-past) tense suffix, however, it can only provide a future meaning, and not a "present" meaning. Example:

(9)   *naːn atai caːppiTTu viTu-kkireːn*
       I   it   ate   complete-PRESENT
       'I will eat eat'

Another interesting point about the use of this "perfective" vector verb *viTu* in Tamil is that, even though it implies resultative meaning in some of its usages, in the case of certain other usages, it can be followed by a clause that *denies* the occurrence of the expected result (Annamalai 1985). Example:

(10)   a.   *kumaːrai   naːn ellaː: iTattil-um   paːrtuviTTeːn;*
            Kumar (ACC) I   all   places-also look.for (COMPLETE);
            kaːNoːm
            found.not
            'I looked for Kumar everywhere; he was not found'

This lack of systematicity in the use of aspectual markers in Tamil has prompted Annamalai (1983: 1) to argue that equating these vector verb constructions (or "extended constructions") with the grammatical notion of aspect (or mood) is misguided.

The category of mood is represented more systematically than aspect in these Dravidian languages, but still, there are several irregularities, gaps and neutralisations which make that representation appear to be rather unsystematic when compared with the representation of tense. The subjunctive (future) paradigm splits into third person and rest of the persons in some languages, with the latter showing no gender-number distinctions. The following Havyaka forms exemplify this paradigm:

Subjunctive paradigm of the verb *tinnu* 'to eat'

	singular	plural
I person	*timbe*	*timbeyŏ* (exclusive)
		tingu (inclusive)
II person	*timbe*	*timbi*
III person	*tingu*	

Notice that the subjunctive suffix is *b* in first and second person forms (excepting the exclusive form in I person plural) and *g* in other forms; further, the gender and number distinctions have been neutralised in the third person.

Other modal forms occurring in Dravidian languages are also irregular as compared to tense forms; some of them show person-gender-number distinctions

and some do not; the distinctions are also neutralised to different degrees in the case of different modal paradigms. On the whole, they are less systematic, indicating that the category of mood plays a less prominent role in these languages.

6.2.4   *Pervasiveness of tense*

Tense distinctions are more pervasive than aspect and mood in Dravidian languages. In addition to occurring obligatorily in finite verbal forms (with very few exceptions), they also occur in most of the non-finite verbal forms. In these latter usages, however, they may be deictic or non-deictic. They are generally deictic in adjectival participles (relative clauses), whereas in converbs (which are used as adverbials or as part of the aspectual, modal or negative constructions) they occur in their non-deictic form. In the case of temporal adverbials, which also make use of converbs, on the other hand, we find both deictic as well as non-deictic tense distinctions. Thus, most of the uses of verbal forms involve the expression of some variety of temporal distinctions in Dravidian languages.

(i)   Adjectival (relative) participles used as nominal modifiers
The adjectival participles may be used, in Dravidian languages, either as nominal modifiers or as part of temporal adverbials; in the former usage, they show a past/non-past deictic tense distinction. They are generally derived by adding the participial suffix *a* or *i* to the past and non-past stems respectively. The following Konda (Krishnamurti 1969: 302) and Kannada phrases exemplify this usage:

(11)   a.   *vaːnru uNs-t-i*   *gumeNDiŋ*
             he   plant-PAST-PARTICIPLE pumpkin
             'the pumpkin that he planted'

        b.   *ruː-n-i*   *guided soRad*
             plough-NON.PAST-PARTICIPLE field   went
             '(She) went into the field they plough'

(12)   a   *beːyis-id-a*   *baTaːTe*
             cook-PAST-PARTICIPLE potato
             'cooked potato'

        b.   *beːyisu-v-a*   *baTaːTe*
             cook-NON.PAST-PARTICIPLE potato
             (i)   'potato that is to be cooked'
             (ii) 'potato for cooking'

The tense distinction occurring in these adjectival participles is deictic in the sense that it is directly related to the utterance time and not to the point of time of the main verb. This point becomes clear in the following Kannada sentence:

(13) *ga:Li-ge bid-d-a   marak-ke na:n-u: hatt-idde*
wind-DAT fall-PAST-PART tree-DAT I-too   climb-was
'I too had climbed the tree that fell by wind'

The point of time of the adjectival participle *bidda* 'fallen' is earlier than that of the utterance time, but it is not necessary that it must be earlier than that of the event denoted by the main verb in the sentence, namely *hattidde* 'had climbed'. That is, the climbing could have taken place, according to (13), either before or after the tree had fallen.

It is possible to retain some of the aspectual and modal distinctions in these adjectival participles, but their retention, unlike the retention of tense distinctions, is not obligatory. In fact, the tense distinctions have to be shown both before as well as after the aspectual and modal markers in these vector verb constructions which, I think, clearly indicates the prominence of tense in these languages. Examples (from Kannada):

(14) a. *kelasav-annu mugis-i   biT-T-a   huDuga*
work-ACC   finish-PRIOR release-PAST boy
'the boy who finished off the work'
      b *kelasav-annu mugis-a   bahud-a:d-a   huDuga*
work-ACC   finish-POST possible-become-PAST boy
'the boy who might finish the work'

Notice that the completive vector verb *biDu* 'release' requires the prior suffix to occur before it in addition to the past suffix which occurs after it. The modal predicate *bahudu* 'possible', on the other hand, requires the posterior suffix to occur before it in addition to the past suffix which follows it; the latter requires, in addition, the supportive verb *a:gu* 'become' as a tense carrier.

Dravidian languages also have a negative adjectival participle, but in most of these languages, it does not show any tense distinction. It is derived by adding the negative suffix to the verbal base, as in the following Tamil expression (Subrahmanyam 1971: 337):

(15) *mu<u>r</u>ai ceyy-a: ma<u>nn</u>avan*
justice do-NEG king
'the king who does not do justice'

South Dravidian languages as a whole, however, use an extended form of the negative suffix (such as *a:t* in Tamil) which, according to Subrahmanyam (1971: 392), involves the addition of the past tense suffix to the negative suffix. Example:

(16)   *ceyy-a:-t-a*   *ve:lai*
        do-NEG-PAST-PARTICIPLE work
        'work which was not done'

Further, some of the Dravidian languages like Malayalam in the southern region and Pengo, Kui and Kuvi in the central region, make a past/non-past distinction in these negative participles also, by using the relevant tense suffixes with the negative suffix. The following Malayalam examples (Abraham 1978: 145) exemplify this usage:

(17)   a.   *innale   kLa:ss-il var-añña   kuTTikaL*
             yesterday class-LOC come-NEG (PAST) students
             'students who did not come to the class yesterday'
        b.   *na:Le   kLa:ss-il var-a:tta   kuTTikaL*
             tomorrow class-LOC come-NEG (NON.PAST) students
             'students who will not come to the class tomorrow'

The non-past negative participle, however, can also occur with a past adverbial as shown by the following sentence:

(17)   c.   *innale   kLa:ss-il var-a:tta   kuTTikaL*
             yesterday class-LOC come-NEG (NON.PAST) students
             'students who did not come to the class yesterday'

(ii) Adjectival participles used in other contexts
As mentioned earlier, adjectival participles can also be used in the formation of temporal adverbials. The tense distinctions that they indicate in these usages are not as sharp and clear-cut as in the previous usage (i.e. in relative clauses). In Kannada, for example, the past and non-past adjectival participles occur before temporal adverbs like *andu* 'on that day', *a:ga* 'then', *divasa* 'day', *va:ra* 'week', etc. to denote deictic tense distinctions. The event that is denoted by the participial verb would be prior or posterior to the utterance time respectively in these usages. Examples:

(18) a. *avanu ban-d-aːga   raːtri aːgittu*
          he   came-PAST-then night became
          'It was night when he came'

      b. *avanu baru-v-aːga   raːtri aːguttade*
          he   come-NON.PAST-then night becomes
          'It will be night when he comes'

A temporal adverbial that contains the past participle can only be used to denote a past reference point in this fashion, whereas the one which contains the non-past participle can be used to denote a non-past as well as a past reference point. Examples:

(18) c. *avanu baru-v-aːga   raːtri aːgittu*
          he   come-NON.PAST-then night became
          'It was night when he came'

      d. **avanu ban-d-aːga   raːtri aːguttade*
          he   come-PAST-then night becomes

The two adjectival participles can also be used with certain other temporal adverbs, but in these cases their use is constrained by the meaning of these adverbs. That is, the past participle can occur with adverbs *meːle* 'after' and *kuːɖaleː* 'immediately', whereas the non-past participle can occur with adverbs like *modalu* 'before' and *varege* 'until'. That is, the two pairs of adverbs denote the relevant non-deictic tense distinctions and the use of participles is constrained by these adverbs. Examples:

(19) a. *avanu kelasa maːɖ-ida meːle hoːda*
          he   work do-PAST after went
          'He went after doing the work'

      b. **avanu kelasa maːɖu-va   meːle hoːda*
          he   work do-NON.PAST after went

(20) a. *avanu kelasa maːɖu-va   modalu hoːda*
          he   work do-NON.PAST before went
          'He went before doing the work'

      b. **avanu kelasa maːɖ-ida modalu hoːda*
          he   work do-PAST before went

Another interesting construction in which the adjectival participles retain their past/non-past (deictic) tense distinction is that of action nominals or verbal

nouns which are formed by attaching the neuter singular personal marker to the
past and non-past stems, as shown in the following Kannada examples:

(21)   a.   *avanu baru-v-udu*   *samšaya*
            he   come-NON.PAST-3NEUT:SG doubtful
            'It is doubtful that he will come'

       b.   *avanu ban-d-udu*   *samšaya*
            he   come-PAST-3NEUT:SG doubtful
            'It is doubtful that he came'

Aspect and mood distinctions are not generally expressed in these construc-
tions which contain adjectival participles.

(iii) Converbs used as verbal modifiers
In contrast to adjectival participles, we find converbs (which are also called
adverbial or verbal participles) being used for denoting non-deictic tense
distinctions. The point of time that they indicate has the point of time of the
following verb (which may be the main verb or another adverbial participle) as
its reference point. I have already described this usage in detail in the second
chapter (see 2.4.1). The following Tulu sentences exemplify this usage:

(22)   a.   *undenɨ keːN-Dɨtɨ*   *aːyagɨ santoːS-aːpuNu*
            this hear-PRIOR him   happy-becomes
            'Having heard this, he becomes happy'

       b.   *aːye iː kathe-nɨ keːN-ontu nalitte*
            he   this story-ACC hear-SIMUL danced
            'While hearing this story, he danced'

       c.   *maŋge koːTenɨ suː-vere   pidaːDye*
            monkey fort   see-POSTerior started
            'The monkey departed for seeing the fort'

Most of the grammars of Dravidian languages do not recognise these
converbs as representing a single paradigm apparently because their translations
in familiar languages like English do not constitute such a paradigm; only one of
them, namely the Prior form, is generally considered to be a "verbal participle".
An additional non-past or durative participle is also recognised in the case of
some of these languages, which actually functions as the simultaneous form.
Posterior form, however, is almost invariably described as an infinitive or
purposive. It appears to me, however, that the three forms are basically temporal
in these languages and do form a paradigm.

(iv) Other uses of converbs

Converbs are used in certain other types of constructions in which the non-deictic tense distinctions that they indicate appear to be of indirect relevance. This is true, for example, of their use in verbal constructions which denote aspect and mood distinctions, and also the ones that denote distinctions of phase (beginning, continuing, ending, completing, etc.).

As mentioned earlier, aspect and mood distinctions are indicated in Dravidian languages primarily with the help of the so-called compound verb constructions in which the main verb in its converbial form is attached to another verb which has an aspectual or modal meaning. The main verb takes the form of a prior (past) converb in the case of aspectual constructions and that of a posterior converb (or "infinitive") in the case of modal constructions. Examples (Tamil: Lehmann 1989: 209, 214):

(23) a. *kuma:r inta na:valai paTi-ttu   viTTa:n*
          Kumar this novel   read-PAST left (COMPLETIVE)
          'Kumar read this novel' (finished off reading)

      b. *inta terivil naTa-kka muTiyum*
          this road   walk-INF possible
          'It is possible to walk on this road'

The prior-posterior tense distinction occurring in the main verb of these constructions is of indirect relevance here, in the sense that the prior form facilitates the denotation of aspectual meanings which are basically past, and the posterior form facilitates the denotation of modal meanings which are basically non-past or future. That is, the Dravidian languages view aspectual and modal meanings from a temporal standpoint.

This is also true of phasal distinctions. In Kannada, for example, ingressive predicates like *toDagu* 'start' or *pra:rambhisu* 'begin' occur with posterior participles but not with prior ones, whereas egressive predicates like *mugisu* 'finish' occur with prior participles but not with the posterior ones. Examples:

(24) a. *avanu ma:tana:D-alu   toDagida*
          he   speak-POSTERIOR started
          'He started to speak'

      b. **avanu ma:tana:D-i toDagida*
          he   speak-PRIOR started

(25) a. *avanu ma:tana:D-i mugisida*
          he   speak-PRIOR finished
          'He finished speaking'

      b. **avanu ma:tana:D-alu   mugisida*
          he   speak-POSTERIOR finished

Predicates denoting stoppage or continuation, however, take neither of these participles in Kannada; instead, they take a non-past verbal noun.

(26) a. *avanu ma:tana:Duvud-annu nillisida*
          he   speaking-ACC   stopped
          'He stopped speaking'

      b. *avanu ma:tana:Duvud-annu munduvarisida*
          he   speaking-ACC   continued
          'He continued speaking'

Similar temporal distinctions in the formation of phasal constructions occur in other Dravidian languages also.

(v) Conditional forms

Most of the Dravidian languages make a non-deictic prior-posterior tense distinction in their conditional sentences, but the actual markers used for deriving these forms appear to be the deictic ones (i.e. the ones occurring in the finite forms of verbs rather than the ones occurring in adverbial participles). In the Havyaka dialect of Kannada, for example, past and non-past stems take the conditional suffix *are* to form the conditional verb which occurs in the protasis of a conditional sentence and denotes non-deictic prior and posterior tenses respectively. Examples:

(27) a. *kelasa ma:D-id-are   payse koDutte*
          work do-PAST-COND money give
          'I will give money (later) if you do the work (now)'

      b. *kelasa ma:Du-tt-are   payse koDutte*
          work do-NON.PAST-COND money give
          'I will give money (now) if you (will) do the work (later)'

The non-past conditional, however, can also denote deictic tense in that the event denoted by the conditional (protasis) can be earlier than the event denoted by the apodosis. Example:

(28) *niːnu ba-tt-are   aːnu-de batte*
you   come-NON.PAST-COND I-too   come
'If you are coming I too will come'

Notice that 'my coming', according to (28), need not be posterior to 'your coming'; it must, however, be occurring after the utterance time, and is therefore in future tense.

The non-past conditional can also be used in a counterfactual situation, but the past conditional needs to be replaced by the corresponding prior-past form (see 29b) in that context. Examples:

(29) a. *kelasa maːDu-tt-are   payse koDutt-itte*
work   do-NON.PAST-COND money give-would
'I would have given money if you were going to work'

b. *kelasa maːD-i-d-d-are   payse koDutt-itte*
work   do-PRIOR-be-PAST-COND money give-would
'I would have given money if you had done the work'

The situation in Tulu is rather interesting. It has the conditional suffix *Da* attached to finite verbal forms. That is, the conditional shows all the person-number-gender distinctions, in addition to the tense distinctions, that are shown by finite forms. Verbs retain the formal distinction between past and non-past and also between immediate past and non-immediate past, but the meaning distinction denoted by them is non-deictic (i.e. relative to the event denoted by the apodosis as in the case of Havyaka conditionals described above). Examples:

(30) a. *aːye bar-p-e-Da   eŋki poː-voLi*
he   come-NON.PAST-3MASC:SG-COND me   go-can
'If he comes, I can go'

b. *unde-ni tin-d-e-Da   jvara barani*
this-ACC eat-PAST-3MASC:SG-COND fever come (NEG)
'If he eats this, fever will not come'

c. *und-eni tint-t-e-Da   jvara baratvani*
this-ACC eat-PAST-3MASC:SG-COND fever came (NEG)
'If he had eaten this, fever would not have come'

Notice that the conditional forms retain the agreement markers (3MASC.SG) of the corresponding finite verbal forms.

6.2.5   *Constraints on the study*

As I had mentioned earlier, the available grammars are rather heavily biased towards tense-prominence and hence it is difficult to decide as to whether a given language, described as tense-prominent, actually gives prominence to tense or to some other category like aspect or mod. I have therefore restricted myself, in the foregoing sub-sections, to describing the possibility of a set of languages (of the Dravidian family, which are the most familiar to me,) being tense prominent. I have pointed out how these languages grammaticalize tense to a greater degree than aspect or mood, and also make tense more obligatory, more systematic, and more pervasive than aspect or mood. There are clearly several other languages that can be regarded as belonging to this tense-prominent language type.

For example, some of the Indo-European languages like English and German and some of the Uralic languages like Finnish appear to be tense-prominent. The category of tense is grammaticalized to a greater extent than aspect or mood in these languages. In English, for example, the basic inflectional distinction, shown in the verbal system, is between past and present (or non-past); much of the complexity that is involved in the derivation of verbal forms occurs in these tense forms (especially that of the past tense). Aspect and mood distinctions, on the other hand, are not grammaticalized to the extent to which tense distinctions are grammaticalized. They occur only in the form of auxiliary verbs that are attached to the past or present participles. For example, progressive aspect is denoted by using the verb *be* as an auxiliary (as in *am writing* and *was writing*) whereas several modal verbs like *can, may, shall, will, must* etc. are used as auxiliaries for denoting modal distinctions.

Tense is also an obligatory category in English, and as I point out elsewhere (see 5.7) this obligatoriness makes it rather difficult to translate into English verbal forms of other languages in which tense distinctions have been left unspecified. In Finnish also, tense marking is obligatory as has been pointed out by Sulkala & Karjalainen (1992: 297). Tense is also more pervasive than aspect or mood in these languages. In Finnish, for example, tense distinctions occur not only in simple tense forms, but also in the forms that denote perfect, conditional and potential (see Sulkala & Karjalainen 1992: 315–6). Another language that appears to belong to this group is Nama Hottentot. According to Hagman (1973: 119), tense is obligatory in this language; aspect, on the other hand, showing a perfective-imperfective distinction, is non-obligatory. Aspect is further

restricted, in this language, to active verbs, whereas tense occurs with both active as well as state verbs.

6.3 Aspect-prominent languages

There are several languages in which the category of aspect is more prominent than tense or mood. The grammars of some of these languages, however, fail to reveal this point mainly because the grammatical tradition followed by their authors emphasises the category of tense at the expense of aspect and mood. For example, Li (1991) points out that the grammars of Hmong use terms like past, present and future for describing its verbal markers but actually the basic distinction that the markers represent is between the two aspectual categories of perfective and imperfective. The former is denoted by the markers *tau* 'attainment' and *lawn* 'completion', whereas the latter is denoted by the marker *taabtom* 'progressive'. Li points out further that there is only a single tense marker in this language, namely *yuav* 'future' which, however, is non-obligatory and can be left unused in a sentence if it contains a temporal expression indicating future time.

In the grammars of Indo-Aryan languages also, we find the names of temporal distinctions like past, present and future being freely used even when the actual distinctions to be named are aspectual and not temporal. This is especially true of Sanskrit, as I will be pointing out below (see 6.3.1). Masica (1991: 262) considers this to be true of modern Indo-Aryan languages as well (see also Hackman 1976). Additional terminological problem has been caused by the use of the term "perfect" in place of the term "perfective" in these and other aspect-prominent languages. It could be seen from the following description, however, that aspect is similar to tense in playing the role of the most prominent verbal category. Languages that give prominence to aspect are also similar to tense-prominent languages in that they also fall into different gradations concerning the type of prominence (in grammaticalization, obligatoriness, systematicity or pervasiveness) that they give to the category of aspect. All of them, however, give greater prominence to aspect than to tense or mood on all these points.

6.3.1   *Grammaticalization of aspect*

We can exemplify the aspect-prominent language type with the help of some of

the languages of the Gur family of Niger-Congo, such as Supyire (Carlson 1994) and Koromfe (Rennison 1966). In Supyire, for example, Carlson points out that the great majority of verbs have two forms, a base which is the perfective form, and a derived one which is the imperfective form. Most tense-aspects require one or the other of these two forms, and a few like the habitual may take either. The derivation of the imperfective is rather complex involving several suffixes, and processes like vowel raising, initial consonant mutation, and tonal change (Carlson 1994: 130). Examples:

Base (perfective)	Imperfective	Gloss
cùgò	*cùgùlì*	deep
cenme	*cenmì*	transplanted
muguro	*mugure*	smile
kwù	*kwùù*	die
bya	*byìì*	drink
ce	*ceni*	know
kanha	*kanre*	be tired
yige	*yìgè*	take out

Koromfe is similar in having a major aspectual division among its verbal forms between perfective and imperfective but within the imperfective, it makes a further distinction between durative and progressive. The perfective form is unmarked whereas the imperfective has an "extended" stem whose derivation may be (i) regular (involving only the addition of a suffix), (ii) semi-regular (involving the addition of a suffix and also the truncation of the end of the verb stem) or (iii) irregular. The progressive is derived from the durative through further extensions (Rennison 1996: 277).

Compared to these aspectual distinctions, which are clearly grammaticalized to a very high degree in these languages, tense and mood distinctions are grammaticalized to a lesser extent. In Supyire, for example, there is no present tense form as such. Progressive and habitual forms have present time reference if they are not accompanied by another tense marker. There are two different auxiliaries used for denoting past tense reference, namely *ná* 'remote past' and *nî* 'recent past'. There is also an auxiliary *màha* used to introduce formal narratives like folk tales or myths. These markers of past time reference are not used again and again in each clause, but only in the beginning; once the past time reference has been set, it can be assumed to persist until the speaker notifies otherwise (Carlson 1994: 328).

In Koromfe also, there is no verbal inflection for denoting present or future reference. In order to indicate past reference, the language uses the suffix *e*, which is added to the perfective form of the verb. The suffix is used, however, only when there is a necessity to do so; past time reference can be obtained in the absence of the suffix as well, as in the use of the unmarked (perfective) form, and the durative form of the progressive. Modal distinctions, on the other hand, are not grammaticalized, except for the imperative, which is the same in form (in the singular) as the unmarked verb or the durative form (Rennison 1996: 276).

The various Indo-Aryan languages spoken in India can also be regarded as aspect-prominent. According to some scholars, this prominence of aspect has been inherited by these languages from the Indo-European parent language itself. For example, Lehmann (1974) considers the aspectual distinction between perfective and imperfective to be the basic distinction among the verbs of Proto-Indo-European. This distinction, according to him, was indicated either by means of affixes or by characteristic forms of the verbal root. There was also a further contrast between momentary and durative aspects. Tense distinctions, on the other hand, were not indicated by means of verbal affixes in the (reconstructed) Proto-Indo-European. Instead, certain particles or adverbs were used for denoting the time of action. It was also possible to merely allow the time of action to be implied by the aspects of verbal forms. Kiparsky (1968: 43) claims that tense and mood were not features on verbs, but rather adverbs in Indo-European; this claim is supported, according to him, by the fact that in Early Indo-European, tenses could be contrasted, negated, etc., just like temporal adverbials.

Aspect gets grammaticalized to a higher degree than tense or mood in Sanskrit as well. The grammarians of Sanskrit have named the four main verbal forms of Sanskrit as *laT*, *liT*, *luŋ* and *lRT*. They have devised these terms in such a way that the statement of morphophonemic rules connected with their use is economised. These terms have been translated into English as present, perfect, aorist and future respectively. But these translations do not reflect their actual connotation or usage. For example, it is aorist (*luŋ*) rather than perfect (*liT*) which is translated by the perfect forms of the English language (Whitney 1888:201). Further, present (*laT*) can be used in contexts in which past meaning is to be indicated, as for example, with the adverb *pura:* 'formerly' or the particle *sma* as shown below, or even by itself:

(31)   *iti   vakti   sma pa:rvati*:
       thus speak (PRES) PAST Parvati
       'Thus spoke Parvati'

According to Burrow (1955: 294), the clearest distinction to be found in this somewhat complicated system of Sanskrit tense stems is the one between the perfect [perfective] system indicating a state on the one hand, and the rest of the conjugation indicating a process [imperfective] on the other. The two are distinguished from one another not only in stem-formation, but also in the fact that they possess distinct sets of personal endings. Burrow suggests that between the perfect and the rest of the conjugation we have clearly the most ancient and fundamental division in the Indo-European verbal system.

The two sets of stems are quite different from one another in the type of morphophonemic variations that they show in their formation. The grammarians of Sanskrit have found it necessary to postulate ten different conjugational classes in order to describe the derivation of present [imperfective] stems, but the description of perfect stems requires no such division of verbal bases. In the former case (present stems), the conjugational distinction involves factors like (i) taking a thematic vowel, (ii) undergoing internal vocalic changes (ablaut), (iii) taking an affix *ya* in addition to the thematic vowel, (iv) showing reduplication (generally of the first consonant), (v) taking the stem sign *no/nu/nv*, *o/u* or *na:/ni:*, and (vi) taking the infix *na* (or *n*) between the vowel and the final consonant of the root (see Mayrhofer 1972).

There is no comparable complexity in the formation of perfect stems; the root is reduplicated in all cases, and is regularly affected by ablaut (vowel gradation). This difference in the formation of present [imperfective] and perfect [perfective] stems can be exemplified with the help of the following sets of third person singular forms in the two major aspectual systems:

Root	Gloss	Present	Perfect
kR	'to make'	*karoti*	*caka:ra*
bhu:	'to be'	*bhavati*	*babhu:va*
duH	'to milk'	*dogdhi*	*dudoha*
kup	'to be angry'	*kupyati*	*cukopa*
bhR	'to bear'	*bibharti*	*babha:ra*
rudh	'to obstruct'	*ruNaddhi*	*rurodha*
hu	'to sacrifice'	*juhoti*	*juha:va*
su	'to press'	*sunoti*	*suSa:va*
muc	'to release'	*muncati*	*mumoca*
car	'to move'	*carati*	*caca:ra*
vaH	'to carry'	*vahati*	*uva:ha*

| *yaj* | 'to offer' | *yajati* | *iyaːja* |
| *pac* | 'to cook' | *pacati* | *papaːca* |

In addition to this distinction in stem-formation, present [imperfective] and perfect [perfective] forms also differ from one another in the set of personal terminations that occur after them. There are two distinct sets of terminations, of which one is used with present stems (and also with the aorist and the future stems), and the other one is used with perfect stems. For example, the suffix used for denoting the first person singular subject is *mi* in the case of present stems, whereas in that of perfect stems it is *a*. Similarly, the second singular suffix is *si* in the present form and *tha* in the perfect form. There are several other differences of this type between these two aspectual forms as can be seen from the following examples:

karoːmi	'I do'	*cakaːra*	'I did'
karosi	'you do'	*cakartha*	'you did'
kurvati	'they do'	*cakruн*	'they did'

All these points together indicate that the primary aspectual distinction is highly grammaticalized in Sanskrit, whereas the tense and mood distinctions show only very little amount of grammaticalization.

6.3.2   *Obligatoriness of aspect*

Aspect-prominent languages show an obligatory marking of aspect distinctions, whereas they indicate tense and mood distinctions through specific markers only when the meaning is not derivable from the context. Noonan (1992) points out, for example, that in Lango, a Nilotic language of Nilo-Saharan family, verbs are inflected for perfective, progressive and habitual aspects. Out of context, perfective will be interpreted as past, habitual as present and progressive as future; they can, however, be assigned to any tense (except that the perfective may not be present) through the use of appropriate temporal adverbials. There are, however, a number of auxiliary verbs that can be used to create definite tense interpretations. For example, the use of *bínô* 'come' in the habitual provides future meaning when used with the infinitive form of the main verb. The use of *nwòŋŋò* 'to find' in its perfective (third person singular) form with the perfective verb provides relative past (or past perfect) meaning; with the progressive and habitual, on the other hand, it provides past progressive and past habitual meanings respectively. Examples (Noonan 1992: 138):

(32)   *bínô*   *cɛ'm*
       (3SG) come (HAB) eat (INF)
       'He will eat'

(33)   a.   *án*   *ònwòŋò*   *ábwôtɛ'*
            I (3SG) find (PERF) (1SG) deceive (PERF-3SG)
            'I had deceived him'

       b.   *ònwòŋò*   *lóce*   *ácɛ'm*
            (3SG) find (PERF) man (3SG) eat (PROGRESSIVE)
            'The man was eating'

       c.   *ònwòŋô*   *ákwánô*   *Ì* *lɛ'b* *láŋô*
            (3SG) find (PERF) (1SG) study (HAB) in tongue Lango
            'I used to study Lango'

Notice, however, that the use of these auxiliaries is not obligatory, as the meaning can be expressed by the use of the relevant temporal adverbials like *cwàñ* mentioned above.

6.3.3   *Systematicity of aspect*

We can exemplify the systematicity of aspect by examining the occurrence of the distinction between perfective and imperfective, indicated by the use of two distinct sets of personal agreement affixes, in Maltese. The imperfective forms are derived by the combination of a stem with a set of imperfective agreement prefixes, showing a three-fold person distinction and a two-fold number distinction in third person. These imperfective forms function as the basis for the formation of the prospective and the progressive. The prospective is formed by combining the imperfective form with the particle *sa* (or other particles like *se, ser*, *ha* or the verb *sejjer* 'go'). The progressive, on the other hand, is derived by adding the particle *qed* to the imperfective form. Maltese makes use of a distinct set of perfective personal (agreement) affixes for deriving perfective forms (see Fabri 1995). In contrast to these aspectual distinctions, the denotation of tense and mood distinctions is rather unsystematic in Maltese. Present tense may be denoted through the use of the imperfective form, but the latter may also denote habitual or even future events if the form is accompanied by an explicit time adverbial. The bare perfective form may be used for denoting past events (Fabri 1995).

We can further exemplify the systematicity of aspect (and the non-systematicity of tense and mood) in aspect-prominent languages with the help of Tamir,

an Austroasiatic language belonging to the Aslian group (spoken in the Malay Peninsula). According to Benjamin (1976: 168), this language makes primarily a distinction between perfective, simulfactive and cotinuative aspects. In general, the perfective aspect is unmarked, consisting of the root alone. The other two are formed by reduplicative processes, involving the initial and final consonants in the continuative aspect and the initial consonant and the marker vowel *-a-* in the simulfactive aspect. These aspect distinctions occur in nominalizations and also in gerunds. Compared to these aspect distinctions, the denotation of tense and mood distinctions is less systematic. Tense is indicated with the help of certain auxiliaries like *hɔj* 'already', *tiʔ* 'yet, still' and *boleh* 'can'. The auxiliary *hɔj* 'already' is the most common way of indicating past tense. There is also a desiderative marker *-m-* that may be used for denoting the imperative (in second person); it also has purposive or resultative connotation.

6.3.4   *Pervasiveness of aspect*

The perfective-imperfective distinction is very pervasive in modern Indo-Aryan languages. In addition to occurring in finite verbal forms, it also occurs in several other types of verbal constructions like adjectival and adverbial participles, verbal compounds, conditionals, temporal adverbials, and also in nominalizations. Tense and mood distinctions, on the other hand, do not appear to get involved in any of these derived verbal constructions.

In Punjabi, for example, perfective and imperfective forms occur contrastively in adjectival constructions, with the imperfective form denoting an action and the perfective form denoting the corresponding state (Bhatia 199-:308, Rangila, Personal communication). Examples:

(34) a. *sau-ndiː   kuʀiː*
          sleep-IMPERF girl
          'sleeping girl' (in the action of sleeping)

      b. *su-ttiː   kuʀiː*
          sleep-PERF girl
          'sleeping girl' (in the state of sleeping)

(35) a. *bai-ndiː   kuʀiː*
          sit-IMPERF girl
          'sitting girl' (action)

     b.   *bai-ʈhiː kuʀiː*
           sit-PERF girl
           'sitting girl' (state)

Similar distinction is shown by Hindi also, in which the imperfective participle denotes 'a doer in the act of doing' and the perfective one denotes 'the doer of an act' (Scholberg 1940: 177–8). Examples:

(36) a.   *hãs-te   hue*
           laugh-IMPERF be
           'the laughing one'
     b.   *soy-aː   huaː*
           sleep-PERF be
           'the one who has slept'

Cardona (1965: 136) points out that in Gujarati, there is a perfective infinitive derived by adding the suffix *el* to the perfective verbal form, which can be used both as a nominal attribute and also as a predicate. It contrasts with the imperfective verbal form, which can also be used as a nominal attribute. Examples:

(37) a   *bolati   bhaša*
           speak-IMPERF language
           'the spoken language'
     b.   *pidhelo   maNəs*
           drink-PERF man
           'the drunken man'

Punjabi uses the marker *rì/rà* (derived from the verb denoting 'remain') for indicating the progressive aspect. The verb can show the imperfective-perfective contrast before this aspect marker with the imperfective form denoting an action and the perfective form denoting a state (Bhatia 1996: 275). We may regard this as showing the retention of imperfective-perfective distinction in compound verbs, since this construction derives from an earlier verbal compound. Examples (Rangila, personal communication):

(38) a.   *mãi sonda: rìa*
           I   sleep-IMPERF remain
           'I kept falling asleep' (action)

b.   *mãi sutta: rìa:*
     I   sleep-PERF remain
     'I remained asleep' (state)

Kellogg (1938: 268) points out that in Hindi also, both imperfective as well as perfective verbal forms can be used in compound verbs (called by him as "conjunct verbs"), as for example, with the verb *ja:* 'to go' in the following pair of sentences:

(39) a.   *vah likhta: ja:ta: hai*
           he   write-IMPERF go-IMPERF is
           'He going on writing'
      b.   *ek   ba:gh paRa: phirta: tha:*
           one tiger   fall-PERF move.around-PERF was
           'A tiger was prowling about'

The two usages differ from one another, according to him, in that the subject in (39b) is represented as having completely come into a certain state, in which state it is then represented as remaining or moving.

The distinction is also retained in some of the adverbial constructions in Punjabi, in which the imperfective form denotes an on-going action whereas the perfective form denotes a completed action (Bhatia 1996: 65, 68). Examples:

(40) *muNDa: nasda: a:ia:*
      boy   run-IMPERF came
      'The boy cam running'

(41) a.   *ó hasda: boLia*
           he smile-IMPERF spoke
           'He spoke smiling'
      b.   *muNDa: mañji te baiTha: boLia:*
           boy   cot   on sit-PERF spoke
           'The boy spoke sitting on the cot'

In the case of adverbs, on the other hand, the contrast appears to show up in Punjabi in the form of a habitual/non-habitual distinction, with the imperfective form denoting an action that had been carried out constantly on a number of occasions and the perfective form denoting an action that was carried out on a single occasion. Examples (Rangila, Personal communication):

(42) a. *baiThde baiThde ó tang aː   giaː*
          sit-IMPERF sit-IMPERF he sick come went
          'He got sick of sitting continuously' (on a number of occasions)
      b. *baiThe baiThe ó tang aː   giaː*
          sit-PERF sit-PERF he sick come went
          'He got sick of sitting continuously' (on a single occasion)

According to Cardona (1965: 136), imperfective and perfective forms occur contrastingly in some of the time phrases of Gujarati, as can be seen in the following phrases:

(43) a. *awti kale*   'tomorrow' (imperfective with 'come')
      b. *gəi kale*   'yesterday' (perfective with 'go')
(44) a. *awte athwaDie*   'next week' (imperfective)
      b. *gəyũ əThwaDiu*   'last week' (perfective)

6.4 Mood-prominent languages

Mood is generally considered to be somewhat different from tense and aspect as a prototypical verbal category. It is considered to be less closely associated with the verb, less united as a category, and less coherent in its encoding (see Bybee, Perkins and Pagliuca 1994: 238). It is also considered to be more speaker-oriented than situation-oriented. Its closer association with illocutionary acts like imperatives and interrogatives has heightened this impression that it is somehow different from tense and aspect in its position as a verbal category. Most importantly, I think, the fact that in familiar languages, mood is less prominent than tense or aspect, and is grammaticalized to a lesser degree than the latter is crucially responsible for this feeling.

If we are willing to make an unbiased comparison of the three categories, we will find them to be similar in being coherent or incoherent, speaker-oriented or situation-oriented, more or less closely associated with the verb, and more or less grammaticalized, depending upon the language that we choose to study. Since these differences occur in the representation of these categories in different languages and not among the categories as such, we need to regard them as representing different manifestations of the three idealised language types (tense-prominent, aspect-prominent and mood-prominent) and not as characterising the categories themselves.

As in the case of tense and aspect categories described earlier, we find languages falling into different types of gradations, such as those of grammaticalization, obligatoriness, systematicity and pervasiveness, in the case of the modal category as well. The typologist, however, has to deal with a comparatively more biased data in this case. Basic modal distinctions are frequently described as tense distinctions, and only the exotic distinctions that cannot be treated in this fashion, such as evidential and epistemic distinctions, are regarded as modal distinctions. The existence of a more basic realis-irrealis distinction has been recognised only recently. There is therefore a need to make an unbiased examination of many of these languages in order to obtain a better understanding of the exact nature of the modal category occurring in them.

The need for such a re-examination has been pointed out by some scholars. For example, Comrie (1985: 51) argues that the description of two different sets of particles occurring in Burmese, namely *me/ma/hma* and *the/tha/tǎ/hta*, which are added to verbal bases in order to derive finite as well as non-finite forms, as "future" and "non-future" respectively (Okell 1969) may not be correct. The prime function of these particles, according to him, is not time reference but rather the denotation of an irrealis-realis modal distinction. It is true that sentences in which verbal forms containing the former particle occur are generally translatable with English future sentences, and the ones in which verbal forms containing the latter particles occur are translatable with present or past sentences. Examples (Okell 1969: 355, 424):

(45) a. *mǎneʔhpañ sá-me*
          tomorrow begin-IRREALIS
          'We shall begin tomorrow'
      b. *moù ywa-nei-te*
          sky rain-stay-REALIS
          'It is/was raining'
      c. *hpwíñ-htà-ta*
          open-put-REALIS
          'I did open it'

Comrie points out, however, that while the realis particle can only be used in sentences that have present or past time reference (with no grammatical distinction between past and present time reference), the irrealis particle can be used not only in contexts with future time reference, but also in contexts with

present time reference, provided the reference is not restricted to our actual world, i.e. provided there is modal value to the particle. Examples (Okell 1969: 355):

> (46) *màcìthì   sà-hpù-me   htiñ-te*
>   tamarind eat-ever-IRREALIS think-REALIS
>   'I think he must have eaten tamarinds before'

Comrie considers (46) to be of special interest in the present context because both irrealis as well as realis forms occur together in that sentence. The irrealis *me* denotes the supposition as to what the agent may have done, and the realis *te* denotes the fact as to what the speaker actually thinks. Notice that the time reference of the irrealis *me* is in fact prior to that of the realis *te* in this sentence, indicating clearly that time reference is not basic to the opposition between these two particles (Comrie 1985: 51). It may be noted here that Allott (1965: 267) describes the Burmese particles *te* and *me* as "realized" and "unrealized" respectively.

Another instance in which a re-examination of the use of category names has been advocated is that of Northern Iroquoian languages. Descriptions of these languages began with verb morphology that used a "tense-laden" terminology, as pointed out by Foster (1985); it was only after Chafe's (1960) "Seneca morphology" that a shift away from the language of tense to the language of mood occurred. Foster points out, for example, that the term aorist or past was used earlier for denoting verbal forms that can be translated in some of the Northern languages as present. What the forms actually indicate is that the meaning is an "uncontestable fact". It has now been generally replaced by the term "factual" by the Iroquanists. The temporal bias persists, however, in the general discussions of these languages, and also in most of the translations of sentences. The latter apparently is unavoidable, but we should not allow it to mislead us.

DeChicchis (1996) examines the use of terms such as "habitual present", "recent past", "remote past" and "definite future" for describing the verbal category markers (*n*, *x*, *k* and *t* respectively) occurring in Q'eqchi', a Mayan language. He argues that the common thread of these markers is not temporal, but rather the cognitive status of an event vis-à-vis the speaker or agent. For example, he finds the marker *n* to be indicating disposition rather than present as in the following sentences:

> (47) a. *hoon na-q-il*
>   soon AUX-ERG.1PL-see
>   'Soon we will see it'

b. *ink'a² n-in-k'ayih*
    NEG   AUX-ERG.1SG-sell
    'I cannot sell it'

The marker *t*, on the other hand, may be described as denoting predictive meaning according to DeChicchis:

(48) *t-oo-xik   se²-tenamit*
      AUX-ABS.1PL-go in-town
      'We can go into the town'

Further, the marker *k* denotes the assertion of an event which need not necessarily be past, as can be seen from the following:

(49) *hoon k-at-in-k'ux*
      soon AUX-ABS.2SG-ERG.1SG-eat
      'Soon I will eat you'

If languages like the ones mentioned above are conceded to be making a basic modal distinction rather than a temporal one, we would notice that these modal distinctions are very similar to tense and aspect distinctions described earlier in assuming the position of the most prominent verbal category. They can be grammaticalized to a greater degree than tense or aspect distinctions in these languages, and further, they can also be more obligatory, systematic, and pervasive than tense or aspect. We can therefore regard these languages as representing the third idealised language type, namely the mood-prominent one.

6.4.1   *Grammaticalization of mood*

According to van der Berg (1989), Muna, an Austronesian language belonging to the Western Malayo-Polinesian branch (spoken in the Muna Island of Indonesia), makes a basic distinction in its verbal forms between realis and irrealis moods. The distinction is expressed by the use of two sets of subject markers; in the case of some verbs, there is also an infix *um* occurring in the irrealis forms, which distinguishes them from realis forms. There are several morphophonemic alternations that are connected with the use of this infix. The following pairs of forms exemplify this realis-irrealis modal distinction:

Realis	Irrealis	Gloss (of irrealis form)
a-kala	*a-k-um-ala*	'I will go'

no-horo	*a-h-um-oro*	'It will fly'
a-gholi	*ae-gholi*	'I will buy'
de-basa	*dae-basa*	'We will read'
omo-gharo	*omo-gharo*	'You will be hungry'
no-lodo	*nao-lodo*	'He will sleep'

The realis forms can refer to either past or present. They can occur with the suffix *ho* to denote future. Irrealis forms, on the other hand, can refer to the future (but cannot occur with the future suffix *ho*) or can express a wish, desire or intention. They are also used obligatorily in negative clauses, i.e., in the presence of negators such as *miina* 'not', *miina-ho* 'not yet' and *pa* 'will not'. The realis-irrealis distinction, however, is not maintained in nominalizations, participles and imperatives, as the subject marker does not occur in these forms (van der Berg 1989: 59).

Kayardild (an Australian language of south Wellesley Island) is another mood-prominent language in which mood is grammaticalized to a greater extent than aspect or tense. According to Evans (1995), verbal stems of this language can be followed by one of a set of final inflections. Most of these, such as Actual, Suppositional, Potential, Desiderative, Hortative, Apprehensive and Imperative, denote primarily modal meanings. There is a past suffix which, however, is used only when the speaker wishes to emphasise the pastness of the action. In other contexts the Actual form is used for denoting past events. There is a suffix used for indicating that an action almost occurred, but it usually refers to undesirable actions. There is also a suffix denoting actions that are directed towards the speaker. Examples:

(50)   *jungarra bawa-tha   warrngald*
       big   blow-ACTUAL wind
       'The wind is blowing strong'

(51)   *niya bukawa-thu   mungkijiwu dulku*
       he   die-POTENTIAL own   country
       'He will die in his own country'

(52)   *wakatha ngukuntha yalawu-jinj*
       sister   water   fetch-HORTATIVE
       'Sister should fetch some water'

Aspectual distinctions, on the other hand, are indicated by using certain verbs like *wirdi-ja* 'be, stay', *dii-ja* 'sit', *karrngi-ja* 'hold, grasp' and *jirrma-ja*

'pile up' after the main verb. Examples:

(53)   *nyingka kurrinda warranda wirdind*
       you   see   go   be
       'You are going around to see (people) a lot'

(54)   *niya diya-ja   karrngi-j*
       he   eat-ACTUAL grasp-ACTUAL
       'He keeps eating, he is eating all the time'

6.4.2   *Obligatoriness of mood*

According to Chafe (1995), Caddo makes a distinction between realis and irrealis
with the help of two distinct sets of pronominal prefixes that are attached to the
verb. These prefixes indicate, in addition to the realis-irrealis distinction, other
distinctions like person, focus and case. They may combine, while denoting first
and second person agents, with prefixes that denote first and second person
patients and beneficiaries, to form more complex prefixes. All these markers
indicate the realis-irrealis distinction. The following are some of the contrasting
prefixes that belong to these sets:

	Realis	Irrealis
I person agent	*ci-*	*t'a-/t'i-*
I person patient	*ku-*	*ba-*
III person beneficiary	*nu-*	*ʔu-*
I person agent with		
II person beneficiary	*t'u-*	*t'aʔu-*
Defocusing agent	*yi-*	*ʔa-*

The occurrence of this distinction in the verbal forms, according to Chafe,
"is an obligatory, clearly marked, and unambiguous feature of every pronominal
prefix (with one minor exception) and thus of every verb". There are a variety
of contexts that condition the use of the irrealis prefixes. They include yes-no
questions, negations, obligation, conditionals, and several others like simulative
dúy 'as if', infrequentative *wás* 'seldom', admirative *hús* 'surprise', etc. In all
these types of sentences, one of the pronominal prefixes belonging to the irrealis
set must be used. Prefixes belonging to the realis set, on the other hand, are to
be used, also obligatorily, in other contexts that include past and future.

The realis-irrealis distinction is obligatory in Manam (belonging to the

Oceanic subgroup of the Austronesian family and spoken in Manam Island of Papua New Guinea) as well. Lichtenberk (1983) reports that the language possess two sets of verbal prefixes whose function is (i) to index the person and number of the subject, present or ellipted, and (ii) to mark the mood, realis or irrealis. Every finite verb must be specified, by means of this subject-mood prefix, either as realis or irrealis. The Manam verbal system can also show a number of aspectual distinctions like completive, continuative, persistive, etc., but the indication of these distinctions is not obligatory. It also makes use of certain posture and motion verbs like *soaʔi* 'to sit', *eno* 'to lie', and *laʔo* 'to go' to express aspects like progressive, persistive and interruptive respectively (Lichten- berk 1983: 181).

6.4.3   *Systematicity of mood*

There do occur languages in which the expression of modal distinctions is more systematic than that of tense or aspect. This is the case in languages like Muna and Caddo described earlier. Achumawi, of the Shastan family, also shows a basic modal distinction, which is more systematic than that of tense or aspect. According to De Angulo and Freeland (1931), verbs of this language show a primary distinction between Indicative and Volitional, represented primarily by the sets of personal prefixes that occur before the verb. They are also differenti- ated from one another by the type of stem alternants that occur in them. The Indicative form provides a simple statement about an action, which is indefinite as to time, whereas the Volitional form indicates the wilful intent to carry out an action. The latter corresponds, to a certain extent, to the imperatives of other languages, but it includes more than the imperative. Examples (De Angulo and Freeland 1931: 89):

(55)   a.   *l-ám*
             I (VOLITIONAL)-eat
             'Let me eat, I wish to eat right now'
       b.   *s-ǎ.m-á*
             I (INDICATIVE)-eat-Ending
             'I eat now, will eat later on, ate'

The denotation of aspect and tense distinctions, on the other hand, is less systematic in this language. There is a present-future distinction, indicated by the use of distinct prefixes, which, however, is restricted to the Volitional paradigm.

Other temporal distinctions like distant past and future eventuality, along with aspectual distinctions like habituative, continuative and perfective are represented by suffixes which are added to the verb stem in a "derivational manner". These suffixes belong to a class of suffixes which includes directionals like into, out of, down, up, and also the reflexive and reciprocal.

6.4.4 *Pervasiveness of mood*

We have already seen how the two-fold realis-irrealis modal distinction occurs in some of the mood-prominent languages like Caddo and Manam in exactly the same way in which the past/non-past tense distinction occurs in some of the tense-prominent languages and the perfective-imperfective aspect distinction occurs in some of the aspect-prominent languages. The denotation of the distinction is pervasive, affecting both finite as well as non-finite verbal forms. In Amele, for example, medial verbs (i.e. verbs used in clause chaining) do not show any tense or aspect distinctions, but when the subjects of chained verbs are different (and the actions are simultaneous), they show a realis-irrealis modal distinction. This distinction has the additional effect of dividing the various verbal affixes occurring in the final verb into realis and irrealis sets, with the past and present tense categories being regarded as realis, and a range of other categories like future, imperative, prohibitive, counterfactual, prescriptive, hortative, apprehensive, etc. as irrealis (Roberts 1990). Examples:

(56) a. *ho bu-busal-en   age qo-in*
pig SIMUL-run.out-3SG:DS:REALIS 3PL hit-3PL:REMOTE:PAST
'They killed the pig as it ran out'

b. *ho bu-busal-eb   age qo-qag-an*
pig SIMUL-run.out-3SG:DS:IRREALIS 3PL hit-3PL-FUT
'They will kill the pit as it runs out'

Amele also makes a realis-irrealis distinction in its conditionals (see 7.2 for examples).

I had pointed out earlier that the category of mood is grammaticalized to a greater degree than tense or aspect in Kayardild, an Australian language. The modal distinctions that this language represents occur not only in verbs functioning as predicates but also the ones functioning as adverbials. Examples (Evans 1995: 304):

(57) *bakii-ja*   *ngakulda warra-ju*
      altogether-POTENTIAL we   go-POTENTIAL
      'We will all go'

(58) *dali-ja*   *kuliya-th*
      come-ACTUAL fill-ACTUAL
      'Lots of (people) are coming'

(59) *ngada yulkalu-tha*   *dana-tha*   *ngumbanji*
      I   eternal-ACTUAL leave-ACTUAL you
      'I am leaving you for good'

In addition to this, Kayardild uses some of its case markers for denoting modal connotations. That is, case suffixes, whose basic function is to denote the relation between the argument and the verb (or the one between two arguments), can also occur as supporting the modal meaning of the verb or even, in some contexts, for denoting such meanings by themselves. Such modal case markers can occur with all noun phrases except subjects and the ones that are in some way semantically oriented with the subject. Examples (Evans 1995):

(60) *nyngka kurri-nang-ku niwan-ju*   *balambi-wu*
      you   see-NEG-POT her-PROP(PRIATIVE) morrow-PROP
      'You will see her tomorrow'

(61) *ngada warra-ja*   *ngarn-kir*
      I   go-ACTUAL beach-ALLATIVE
      'I am going/have gone to the beach'

(62) *dangkaa raa-jarra* *bijarrba-na wamburugu-nguni-na*
      man   spear-PAST dugong-ABL spear-INSTR-ABL
      'The man speared the dugong with a spear'

The case markers Propriative in (60), Allative in (61), and Ablative in (62) have been used as modal markers rather than as case (relation) markers. Evans (1995) points out that some of these case markers are formally identical with the corresponding verbal mood markers as in the case of the Porpriative (modal) case and the Potential verbal marker, Locative case and Immediate marker, or Oblique case and Hortative marker. There are also semantic correlations between the two: for example, Ablative correlates with verbal suffixes such as Past, Precondition and Almost, and Allative correlates with the verbal suffix denoting directed action. Evans points out, however, that the modal case can also vary independently allowing for a multiplication of subtle meanings.

Chafe (1991) reports that Caddo has a set of defocusing prefixes whose general function is to deflect attention from referents that may be irrelevant, unknown or defocused for some other reason. These prefixes show distinctions between agent, patient and beneficiary, but in addition to this, the three show a further distinction between realis and irrealis as shown below:

Defocusing Prefixes:

	Realis	Irrealis
Agent	*yi-*	*ʔa-*
Patient	*ya-*	*ʔaʔa-*
Beneficiary	*yu-*	*ʔaʔu-*

The prominence that Caddo gives to the modal distinction between realis and irrealis through grammaticalization has already been referred to above (see 6.4.1). The indication of this distinction in these defocusing prefixes exemplifies its pervasiveness in Caddo.

In Lewo, an Oceanic language, the realis-irrealis modal distinction affects negation as well. Early (1994) reports that the language has two different negative particles, *ve* 'irrealis negation' and *pe* 'realis negation'. These two particles precede the verb, and are used along with two other particles, *re*, which follows the verb and *poli*, which follows the direct object, if there is one. Examples:

(63)   a.   *naga ô-vano*
            he   3SG-go(IRREALIS)
            'He will go'

       b.   *naga ve   ô-va   re*
            he   NEG(IRREALIS) 3SG-go(IRREALIS) NEG
            'He will not go'

(64)   a.   *naga ô-pano*
            he   3SG-go(REALIS)
            'He has gone'

       b.   *naga pe   ô-pa   re   poli*
            he   NEG(REALIS) 3SG-go(REALIS) NEG NEG
            'He has not gone'

6.5 Summary

The foregoing study of the tense-prominent, aspect-prominent and mood-prominent languages has shown that there do occur languages belonging to different areas and genetic affiliations that exemplify the three idealised language types that I had earlier established. The three verbal categories (tense, aspect and mood) are also very similar to one another in assuming a greater degree of prominence by way of grammaticalization, obligatoriness, systematicity and pervasiveness. As I had mentioned earlier, there is a need to re-examine the grammars of these and other languages from the point of the relative prominence that they attach to these three categories, before we can establish the actual set of languages that belong to one or the other of these three language types.

Correlatable Characteristics

7.1 Introduction

I have suggested, in the previous chapter, a typological classification of languages into tense-prominent, aspect-prominent and mood-prominent language types on the basis of the relative prominence that they give to tense, aspect and mood respectively. My purpose in the present chapter is to justify this classification by showing that it is relevant for a proper understanding of the nature of language. I propose to do this by describing some of the characteristics and tendencies that can be correlated with this classification. Some of these characteristics involve long-standing disputes in linguistics; it would be shown that the classification brings out an entirely different facet of these disputed topics. There are also cross-linguistic variations that have remained unexplained, and the present typology appears to provide a basis for explaining them. Other correlations that are brought up by this study emphasise the necessity to re-examine some of the language-universal generalizations that have been proposed.

It must be noted, in this connection, that these correlatable characteristics are being ascribed to the three different idealised languages and not to the actual sets of languages that may be grouped under them. My claim is that languages can be regarded as being more or less close to one of these idealised languages depending upon the number of characteristics that they share with it. Further, this closeness would be correlatable with the degree of prominence that the languages attach to the relevant verbal category (tense, aspect or mood) as described in the previous chapter. It is especially this latter possibility of establishing a correlation between these two variables, which makes this typology of verbal categories worth pursuing.

7.2 Effects of decategorization

I have pointed out in Bhat (1994: 91) that when lexical items belonging to a particular category are used in the function of some other category, they show the characteristics of both decategorization as well as recategorization. For example, when verbs are used in the function of nouns through nominalization, they fail to show several of their verbal characteristics like manifesting distinctions of tense, aspect or mood, taking agreement markers and showing various types of voice distinctions. These can be regarded as characteristics of decategorization. In addition to this, they also take on nominal characteristics like showing count-mass distinction, definite-indefinite distinction, and taking plural markers and markers for case. These can be regarded as characteristics of recategorization. Similar characteristics of decategorization as well as recategorization are shown by words belonging to other lexical categories like nouns, adjectives and adverbs as well, when they are used in the function of other categories.

The fact that lexical items tend to get decategorized when they are used in functions which are not their own has been recognised by several linguists. For example, Hopper and Thompson (1984: 710) describe several types of contexts in which nouns and verbs show only some of their categorial characteristics. They point out that verbs used in contexts in which they do not report an event fail to show a range of oppositions characteristic of those used in contexts in which they do report an event, such as (i) having the markings for agreement with the subject or object, and (ii) showing distinctions of tense, aspect and mood. According to Comrie and Thompson (1985: 361), these decategorized forms may involve a cline of expressibility of verbal categories: "finite verbs can express the most such categories, non-verbal categories fewer, action nominals still fewer, and other noun phrases fewest of all" (see also Givón 1990: 498).

Languages have also been found to differ rather markedly from one another concerning the extent to which they decategorize verbal categories in such extended uses of verbal bases (see Bhat 1994). They have also been found to differ from one another concerning the type of verbal category that they retain. The former variation can be correlated with the degree of decategorization that the verbal forms attain in such constructions as pointed out above, but the latter variation has generally remained unexplained.

In fact, linguists appear to have been unduly influenced by aspect-prominent languages like some of the Indo-European ones in their understanding of this latter phenomenon (i.e. the type of category that gets neutralised or lost in that

process). For example, Binnick (1978: 296) claims that deverbatives are to be regarded as deriving from underlying structures that are marked only for aspect and not for tense. He considers tense to be primarily a category of independent (i.e. topmost) clause; it occurs in non-topmost clauses, according to him, only in certain privileged enclaves, such as direct quotes or *that*-clauses, but not normally in non-topmost clauses like non-finite forms. According to Comrie and Thompson (1985: 360), the category of mood is relatively rare in non-finite verbal forms. For example, they consider it possible, in the case of action nominals, to claim that the modal category is simply not retained. Tense also, according to them, is retained in the form of relative tense rather than that of absolute tense in these non-finite verbal forms. Comrie (1985: 93) suggests that loss of tense in conditionals can be correlated with the degree of their hypotheticality.

A contrastive study of tense-prominent, aspect-prominent and mood-prominent language types indicates, however, that the retention of a particular category in non-finite forms depends upon the kind of *prominence* that the category receives in the language under consideration and not necessarily upon the nature of that category (i.e. whether it is tense, aspect or mood). Tense-prominent languages appear to retain tense more readily than aspect or mood, whereas aspect and mood-prominent languages appear to retain aspect and mood respectively more readily than the other two categories. It is true that this difference between tense-prominent, aspect-prominent and mood-prominent languages is correlatable with the observation that the most prominent category would be grammaticalized to a greater degree than any of the other categories in the language concerned, and hence one can claim that the greater degree of retention of the prominent category in decategorization results from the greater degree of its grammaticalization in these languages. It is also correlatable with the generalization that the most prominent category is also the most pervasive one in a language. The fact remains, however, that the retention of these verbal categories in decategorization does not depend upon the nature of those categories as is apparently assumed by some linguists.

I have already given examples for this phenomenon in the previous chapter when I described the pervasiveness of different grammatical categories in different languages. For example, tense is retained to a greater extent than aspect or mood in the non-finite verbal forms of Dravidian languages. In Kannada, for example, tense distinctions occur either in the deictic or non-deictic form in almost all constructions that involve non-finite forms like converbs and relative participles; aspect and mood distinctions do not occur in most of these construc-

tions. In aspect-prominent languages, on the other hand, aspect-distinctions are retained to a greater extent than tense or mood distinctions in non-finite verbal forms. For example, the participial constructions of Lezgian show the basic distinction between imperfective and aorist (perfective), and also between other aspectual distinctions like continuative and perfect but not past aorist, past perfect or past future; future is indicated only in the imperfective in these participial constructions (Haspelmath 1993). Similarly, in the case of mood-prominent languages, we find the distinctions that get retained in non-finite verbal forms to be modal rather than temporal or aspectual. In Amele, for example, medial verbs with different subjects show a modal distinction between realis and irrealis, but not any of the tense or aspect distinctions.

This contrast between tense-prominent, aspect-prominent and mood-prominent languages in their retention of verbal category distinctions in non-finite forms can be shown clearly through an examination of the conditionals that occur in three different languages, namely Havyaka (tense-prominent), Gujarati (aspect-prominent) and Amele (mood-prominent). In Havyaka, the conditionals show a two-fold prior-posterior tense distinction, whereas in Gujarati the distinction is between the perfective and the imperfective aspects; in Amele, on the other hand, the distinction is between the realis and the irrealis moods (Roberts 1990). Examples:

Havyaka:

(1)   a.   *niːnu ba-tt-are   paysa koDutte*
           you   come-NON.PAST-COND money give
           'I will give you money (now) if you will come (later)'
      b.   *niːnu ban-d-are   paysa koDutte*
           you   come-PAST-COND money give
           'I will give you money (after you come) if you will come'

Gujarati:

(2)   a.   *tuN wəkhətsər awe   to   apNe bəhar jəie*
           you on.time   come(PERF) then we   out   might.go
           'If you come on time, we might go out'
      b.   *e saurN kam kərto   hOt to prəphesər that*
           he good work do(IMPERF) be then professor become
           'If he were doing good work, he would (have) become a
           professor'

Amele:

(3) a. *ho busale-gi-na   fi   aqo-qo-na*
         pig run(out)-3PL-PRES if (REALIS) 3PL(OBJ)-hit-1PL-PRES
         'If the pigs run out we kill them'
     b. *ho busalo-u-b   mi   a-qo-u-m*
         pig run (out)-CONTF if (Irrealis) 3PL(OBJ)-hit-1PL-CONTF
         'If the pigs had run out we would have killed them'

7.3 Ergativity split

Variations occurring among languages in their case marking and agreement systems have formed the basis for a typological classification of languages into accusative and ergative (and also into languages that are neither accusative nor ergative and called "active"). In order to provide an explicit description of the main distinction involved here, linguists have found it convenient to use three main "core" concepts, generally symbolised as S, A and O. Of these, S represents the single obligatory argument of intransitive sentences, whereas A and O represent the two obligatory arguments of transitive sentences. A is typically the controller of actions, and O is typically the affected argument (see Dixon 1979, 1994, Comrie 1981). Examples:

(4) a. *The dog died*
                S
     b. *The man killed the dog*
              A   O

Following Dixon (1994), the distinction between accusative and ergative systems can be described as follows:

Accusative system		*Ergative system*
Nominative	⎧ A	Ergative
	⎨ S ⎫	Absolutive
Accusative	O ⎭	

The crucial difference between these two systems is that in the case of the accusative system, the core argument S (single obligatory argument of intransitive sentences) is (i) case marked and also (ii) marked by verbal agreement in exactly the same way as A, whereas in that of ergative systems, it is marked in

the same way as O. The sentences given above show that English is an accusative language since S (*the dog*) and A (*the man*) are both in the nominative and the verb agrees with them. Basque, a language isolate, spoken in Pyrenees, on the other hand, shows the ergative system as can be seen from the following sentences (Eguzkitza 1987):

(5)   a.   *gizona   etorri do*
             man (ABS) come is
             'The has come'
       b.   *gizona-k libura   bidali du*
             man-ERG book (ABS) sent   has (it)
             'The man has sent the book'

Notice that in (5a) *gizona* 'the man' (S) is unmarked for case (i.e. it occurs in the absolutive case) whereas in (5b) *gizona* 'the man' (A) occurs with the ergative suffix *k* and *libura* 'the book' (O) is unmarked for case (it occurs in the absolutive case). That is, S is similar to O rather than A in its case marking.

There are some languages in which the ergative system is restricted to some contexts only, with the accusative system being used in other contexts. These languages have been regarded as showing "split-ergative" systems. The actual conditioning of this split can be of different types such as

(i)   the semantic nature of the verb (controlled vs. uncontrolled),
(ii) the semantic nature of the arguments (I or II person vs. third person), and
(iii) distinctions in the tense or aspect of the verb (past vs. non-past or perfective vs. imperfective).

The ergative system, in these split-ergative languages, will be restricted to (i) non-controlled verbs, (ii) third persons arguments, and (iii) past or perfective verbs, respectively (see Dixon 1994).

This ergativity split appears to be correlatable with the verbal category that is most prominent in a given language. This is especially true of the second and third type of ergativity splits mentioned above. That is, mood-prominent languages tend to show a personal (or nominal) split whereas tense or aspect-prominent languages tend to show a tense-based or aspect-based split respectively. For example, in the case of Indo-Aryan languages, which are generally aspect-prominent as I have shown in the previous chapter, the ergativity split is conditioned by the perfective-imperfective aspectual distinction of the verb. The personal terminations occurring in the verbal forms of these languages agree with

the subject in the case of imperfective forms, whereas in that of perfective forms they agree with the object. The following Marathi sentences exemplify this split (Berntsen and Nimbkar 1982):

(6)   a.   *polis cəukəši kərit ahet*
           police enquiry doing be (3PL)
           'The police are making enquiries'

       b.   *əmhi səmšodhən kərit ahot*
           we research doing be (1PL)
           'We are doing research'

(7)   a.   *šetkəryan-ni kam ke-l-ə hoti*
           farmers-ERG work (NEUT:SG) do-PERF-NEUT:SG had
           'The farmers had done the work'

       b.   *šetkəryan-ni jvari per-l-i hoti*
           farmers-ERG jowar (FEM:SG) plant-PERF-FEM:SG had
           'The farmers had planted jowar'

Notice that in (6a–b), which has an imperfective verb, the agreement is with subject, whereas in (7a–b), which has a perfective verb, the agreement is with the direct object.

Dixon (1979: 95) considers this split to be resulting from the fact that in the case of an imperfective verb, something that has not yet happened (i.e. something that is only thought of as the propensity of the potential agent) is being indicated, and hence the emphasis can be on the agent (subject), whereas in the case of a perfective verb, a completed event is being indicated (i.e. an event that can be thought of as something that has affected an object) and hence the emphasis can be on the object. Trask (1979: 396), on the other hand, provides a somewhat different explanation for this split, namely that an imperfective verb indicates a process that an agent (subject) is performing and hence the agreement is with the agent, whereas a perfective verb indicates a state which resides in the patient (direct object) and hence the agreement is with the patient. There is no agreement split in the case of intransitive verbs in these languages because both processes as well as states would be residing on the agent or subject in these cases.

We may contrast this situation with that of some of the Tibeto-Burman languages in which a split in the agreement pattern of personal markers occurs on the basis of an evidentiality distinction. Most of the Tibeto-Burman languages do not attach any agreement markers to their verb; however, there are some languages like Tangut and Sherpa, called "pronominalizing" languages, in which

there do occur agreement markers on verbs. According to DeLancey (1981: 631), a number of these languages show a nominative-ergative split pattern, but the split is conditioned by the fact as to whether or not a speech-act participant (speaker or hearer) assumes the role in the event concerned.

In Tangut, for example, there is no agreement with third person arguments. If either the subject or the object is third person, and the other is first or second person, however, the verb will agree with the first or second person; if the subject is first person and the object the second, or vice versa, agreement is with the object. Tangut also shows agreement with the possessor of subject or object, provided that the possessor is of first or second person (DeLancey 1983: 104). In Nocte, another Tibeto-Burman language, agreement is always with a speech act participant (speaker or hearer) in preference to a third person. Unlike Tangut, however, Nocte does have a third person agreement marker that occurs when no speech act participant is involved. Further, when the agent is second person and the patient is first person, the agreement is with the patient, whereas when the agent is first person and patient the second, the agreement is with the agent (first person plural). Examples (DeLancey 1981: 641, quoted from Das Gupta 1971):

(8)   a.   *ate-ma nga-nang hethoh-ang*
                he-ERG I-ACC   teach-1SG
                'He will teach me'

         b.   *nga-ma ate hetho-ang*
                I-ERG   he teach-1SG
                'I will teach him'

         c.   *nang-ma nga hethoh-ang*
                you-ERG I   teach-1SG
                'You will teach me'

         d.   *nga-ma nang hetho-e*
                I-ERG   you teach-1PL
                'I will teach you'

Bauman (1979: 419) argues that this split-ergative agreement pattern is reconstructible to Proto-Tibeto-Burman itself. The idealised split-ergative mode on which these patterns are based, according to him, is one in which the agreement is with the object if the object is of first or second person, and with the subject if it is of third person. The true reason for this split, according to him, involves the evidential nature of the speaker's assertion; i.e. whether he (or his hearer) has actively participated or whether it is a conjecture based on some other type of

evidence (1979: 425). Bauman points out that this notion of evidentiality plays a crucial role even in the case of Sherpa, another Tibeto-Burman language, which has independently developed a somewhat different agreement pattern. In that language, the agreement suffix *yin* is used if the speaker and the actor are the same, and a different agreement suffix *wu* is used if the hearer and the actor are the same. However, these two suffixes are used only if each has, or is expected to have, first-hand knowledge of the proposition. The suffix *yin* is therefore used only in declarative sentences and *wu* only in interrogative sentences; all other propositions which lack the same measure of certainty to the speaker are marked with disjunct role markers or have unmarked verbs (Bauman 1979: 426).

7.4 Tensedness parameter

Stassen (1997) makes a distinction between tense-oriented and aspect-oriented languages, a distinction that is correlatable, to a certain extent, with the distinction that I make here between tense-prominent and aspect-prominent languages. He considers languages to be "tensed" or tense-oriented if they have a grammatical category of tense (i) which is bounded on verbs and (ii) which minimally involves a distinction between past and non-past time reference. He does not define aspect-oriented languages, but apparently regards all non-tensed languages to be aspect-oriented. As a result, he has no place for mood-oriented languages in his generalization. Further, his tensed (or tense-oriented) languages need not necessarily be tense-prominent; it is sufficient if they satisfy the conditions mentioned above (see, however, below).

Stassen finds the distinction between tensed and non-tensed languages to be useful in predicting the type of encoding that languages use for their adjectival predicates. He considers these to be encoded as verbs by default; his claim is that when a language is tensed, this default option for encoding gets overruled, and as a result, adjectival predicates are not treated on a par with verbs; instead, they are encoded like nominal or locational predicates. For example, Supyire, a non-tensed (aspect-prominent language), shows the default system of encoding adjectival predicates as verbs, as can be seen from the following sentences (Carlson 1994):

(9) *kafáága   a   pèè*
     stone (DEF) PERF big
     'The stone is big'

(10)   *sikàŋa   a   bò*
        goat (DEF) PERF kill
        'The goat has been killed'

(11)   *yire   wà pyì   yè*
        they (EMPH) be (they) children
        'They are children'

Notice that the predicate *pèè* 'big' in (9) and the verbal predicate *bò* 'kill' in (10) occur directly with the perfective marker, whereas the nominal predicate *yè* 'children' in (11) requires an auxiliary support.

English, on the other hand, is a tensed language. Its verbal core system consists of two paradigms of finite forms, called simple present and simple past, which have present and past time reference respectively. Accordingly, the adjectival predicates of English are not encoded as verbs; they require an auxiliary support, and are similar to nominal predicates on this point.

(12)   a.   *The boy sleeps.*
        b.   *The boy is tall.*
        c.   *The boy is a singer.*

Stassen's explanation for this tensedness constraint on the encoding of adjectival predicates is the following: Adjectives are more time-stable than verbs and hence tense-marking is not as relevant to them as for verbs; further, such a marking is non-iconic or may even be anti-iconic for them and is therefore avoided. (A similar claim and also a similar explanation for the above-mentioned tensedness constraint have been put forth by Wetzer 1996). Strassen tests his claim on the basis of data gathered from 410 languages (mainly published sources) belonging to different parts of the world and finds it to be supported by a majority of them.

We can regard this tensedness constraint as representing another characteristic of tense-prominent languages. The fact that these languages give greater prominence to the time of occurrence of the concepts that their verbs denote makes the use of adjectival predicates as verbs non-iconic as pointed out above. This point gets support in the additional fact that I point out below (see 7.5), namely that tense-prominent languages tend to have no state verbs as such (or very few irregular state verbs); their verbs are primarily dynamic in nature, denoting either actions or processes. Aspect-prominent languages and mood-prominent languages, on the other hand, tend to have substantial classes of state verbs.

While trying to account for problematic cases, i.e. instances of languages

which, though "tensed" by definition, do allow verbal encoding for adjectival predicates, Stassen had to make use of the notion of "degree" of being tensed or non-tensed. For example, he finds the verbal system of Berber to be non-tensed to a higher degree than those of other Afro-Asiatic languages, a fact which is matched by the occurrence, in Berber, of adjectival verbs as state verbs (or qualificative verbs) which are typically non-distinct from "real" verbs (1997: 505). The languages of this Afro-Asiatic area, according to Stassen, can be situated on a continuum, extending from a completely "verby" encoding (as in Akkadian or Berber) to a completely "nouny" encoding (as in Modern Hebrew or Modern Arabic), with several in-between stages. He suggests that this adjectival drift from verbiness towards nouniness goes hand in hand with an increase in the tense-orientation of the verbal system (1997: 518). That is, the concept involved here is tense-prominence rather than merely tensedness.

Stassen (1997) makes use of this notion of tensedness gradation in several other places in his study in order to account for problematic cases. For example, in his examination of the languages of Mexico, he finds a correlation between a gradual shift towards tensedness (or a gradual increase in the prominence of tense) on the one hand, and a process by which predicate adjectives gradually separate themselves from verbs on the other (1997: 536). He finds a similar "gradual shift from an aspectual-modal [prominence] towards a temporal predominance" among modern Tibetan dialects which is also correlatable with a gradual separation of predicative adjectives from verbs (for their encoding) (1997: 550). It can therefore be concluded that tensedness parameter, on the whole, is a parameter of tense-prominence rather than merely that of tensedness.

It must be noted here that the tensedness parameter provides the basis for establishing a constraint *against* the encoding of adjectival predicates as verbs; it does not provide any basis for claiming that the alternative encoding must be that of nouns (or of locational predicates) as claimed by Stassen (1997). It is quite possible for adjectives to be encoded as *adjectives* in the predicative position, i.e. as modifiers of a nominal element. This element may be a noun proper, or a dummy element, such as, for example, a pronominal "agreement" marker. For example, Thompson (1988) finds adjectives that predicate a property in English to be occurring either with a copular verb as in *they are appropriate*, or as the modifier of a predicate nominal as in *he is a good person*. Kannada shows the latter property: several of its adjectives show the constraint that they require the addition of a pronoun or a pronominal element for predicative use, whereas no such supporting item is necessary for their modifying use. Examples:

(13) a. *doDDa pustaka meːji-na   meːle ide*
          big   book   table-GEN on   is
          'The big book is on the table'

      b. *meːji-na   meːle iruva   pustaka doDDa-du*
          table-GEN on   be(NON.PAST PART) book   big-it
          'The book which is on the table is big'

Another important point that needs to be noted here is that the occurrence of aspect or mood as the prominent category does not force verbal encoding upon adjectives in the way in which non-verbal encoding is forced upon them by the prominence of tense. That is, it is quite possible, as far as the tensedness parameter is concerned, for a tense-prominent language, which has its adjectival predicates encoded non-verbally, to change into an aspect-prominent or mood-prominent language and continue to have its adjectival predicates remaining with their non-verbal encoding. There are actually languages showing aspect-prominence and having non-verbal encoding for adjectives. For example, Sanskrit and most of the Indo-Aryan languages are aspect-prominent, as I have pointed out in the previous chapter. But they show non-verbal encoding for adjectival predicates. This is especially true of Sanskrit, in which adjectives are indistinguishable from nouns in both predicative as well as prenominal usages (see Bhat 1994).

7.5 Absence of state verbs

Another interesting characteristic that is shown by some of the tense-prominent languages is the absence of state verbs. This characteristic is clearly related to the tendency described in the previous section, namely that adjectival predicates, which are prototypically state predicates, tend to have non-verbal encoding in these tense-prominent languages. The prominence that these languages give to the denotation of the point of time (of the occurrence of an event) in their encoding of verbs apparently makes it necessary for them to restrict their verbal encoding to dynamic lexical items. Aspect- and mood-prominent languages, on the other hand, generally have fairly substantial classes of state verbs. In many of these languages, the whole word-class of adjectives gets included in the category of verbs, in the form of a sub-class called state verbs.

The verbal category in Dravidian languages is primarily dynamic. There are generally only a few state verbs occurring in the peripheral area of the verbal system in these languages. In Kannada, for example, all the regular verbs are

dynamic, denoting either an action (i.e. having volitional arguments) or a process (having no volitional arguments). Exceptions to this are (i) the verb *iru* 'to be' which is different from other verbs in showing a three-fold past-present-future tense distinction (as against the normal past/non-past tense distinction), and also in being primarily an auxiliary (see 2.3), and (ii) certain modal verbs such as *beːku* 'want', *saːku* 'enough', *bahudu* 'posible' and *bal-* 'can' which do not show any tense distinctions. Examples:

(i) Two-fold tense-distinction of ordinary verbs:

    (14)   a.   *raːju manege hoːg-utt-aːne*
                Raju home   go-NON.PAST-3MASC:SG
                'Raju goes home'

           b.   *raːju manege hoː-d-a*
                Raju home   go-PAST-3MASC:SG
                'Raju went home'

(ii) Three-fold tense-distinction of the verb 'be':

    (15)   a.   *raːju maney-alli ir-utt-aːne*
                Raju home-LOC be-FUT-3MASC:SG
                'Raju will be at home (when you go there)'

           b.   *raːju maney-alli id-d-aːne*
                Raju home-LOC be-PRES-3MASC:SG
                'Raju is (now) at home'

           c.   *raːju maney-alli id-d-a*
                Raju home-LOC be-PAST-3MASC:SG
                'Raju was at home'

(iii) Absence of tense distinctions in the use of modal verbs:

    (16)   *nanage ondu pustaka beːku*
           me   one book   want
           'I want a book'

    (17)   *raːju iː   mara kadiya-ball-a*
           Raju this tree   cut-can-3MASC:SG
           'Raju can cut this tree'

    A similar constraint is shown by Nama Hottentot, a Khoisan language of South West Africa, in which tense-marking is obligatory whereas aspect-marking is optional. Hagman (1973:160) points out that there are only few state verbs in

this language, with meanings such as 'know', 'be present', 'able', 'want', 'believe' and 'feel'. Some of these can be used as auxiliaries and some, only as auxiliaries. These state verbs can take tense markers, but they require the support of a copula for this purpose; further, the aspect affixes do not occur with these state verbs.

As I have mentioned earlier, aspect-prominent and mood-prominent languages tend to have large classes of state verbs. For example, a number of verb types in Upriver Halkomelem are stative in nature, such as adjectival verbs and adverbial verbs; others can be derived from many verbs by adding the stative *s-*, usually in combination with the resultative aspect inflection (Galloway 1993). This is also true of Turkana in which the adjectives are indistinguishable from stative verbs (Dimmendaal 1983). In the case of mood-prominent languages like Mao Naga, Khezha, Muna, Chalcatongo Mixtec etc. also, the verbal category includes large classes of state verbs. In Muna, for example, there are only two open word classes, namely nouns and verbs, with adjectives occurring as stative intransitive verbs (van der Berg 1989: 46).

There is also a possible diachronic tendency that is correlatable with this characteristic. Stassen (1997: 518) points out that in the Afro-Asiatic area, the drift from aspect-oriented verbal system in the direction of tensedness especially affected the status of the stative form. In some languages, this form was reanalysed as a past form, and in others it disappeared from the core system (and was often replaced by a new, periphrastic and peripheral, nominal verb form with a stative/perfective meaning). The common outcome of these changes, according to him, is that the language came to lack a simple verb form for the expression of stativity.

English is apparently an exception to this generalization in that it does contain a class of state verbs in spite of its being a tense-prominent language. That is, it belongs to a lower level of the gradation of tense-prominent languages as far as this particular characteristic is concerned. Notice, however, that most of the state verbs of English can also be used as dynamic verbs. Quirk and Greenbaum (1973: 21) point out, for example, that the verb *be* of English, even though a stative as shown by the unacceptability of (18b) given below, can also be used dynamically, in the progressive, when its complement is dynamic as shown in (18c):

(18)   a.   *The girl is now a student of a large university.*
        b.   **The girl is now being a student....*
        c.   *He is being a nuisance again.*

As we have seen in the third chapter, the distinction between state verbs and dynamic verbs is generally regarded as an aktionsart (or actionality) distinction, and is closely associated with aspect. There are other related distinctions like telic-atelic and punctual-durative, which also play a prominent role in the verbal systems of aspect-prominent languages. They constrain the occurrence as well as the meaning of aspect markers in various ways. In Navajo, for example, the perfective-imperfective distinction does not occur in the case of stative verbs. Among the non-stative verbs also, there is a further distinction between durative and instantaneous verbs, with the imperfective, when used with the instantaneous, focusing on its preliminary stages rather than the event itself (Smith 1991: 397, 419). Such aktionsart distinctions appear to have very little influence upon the verbal systems of tense-prominent languages.

7.6 Variations in the mode of encoding the categories

Bybee (1985: 22) differentiates between tense, aspect and mood on the basis of their relevance to the verb. Aspect is considered to be exclusively relevant to the verb as it describes the internal temporal structure of the event denoted by the verb, whereas tense is considered to be less directly relevant to the verb because it places a whole situation in time. Mood, on the other hand, is considered to be even less relevant to the verb than tense as it expresses the speaker's attitude towards a situation. This difference in the *relevance* of these three verbal categories is considered by Bybee to affect their grammaticalization or encoding properties. She finds lexically determined allomorphy for aspect to be more frequent than for tense or mood. She also finds aspect markers to be occurring closer to the verbal stem than tense and mood markers (see 1985: 37). Her explanation of these facts is based upon the following three observations:

(i)   Generally, the most relevant element occurs closest to the verb.
(ii) A morpheme cannot become fused with a verb unless it is immediately contiguous to the verb.
(iii) Relevance also influences the actual fusion process, since the elements to be fused must have conceptual unity.

There are, however, some exceptions to these generalizations in that there are languages in which tense or mood markers are grammaticalized to a greater extent than aspect markers, and further, there are also instances in which tense

or mood markers are closer to the verb than aspect markers. The possible explanation for these exceptional cases, I believe, is that the notion of relevance can conflict with the notion of prominence. That is, a category that receives the greatest prominence in a language can get closer to the verb and be the basis of the most complex set of allomorphic rules (as a result of fusion), even if it is less relevant to the verb from a language-universal or "semantic" point of view. I will examine this possibility below from the point of view of both tense-prominent (7.6.1) as well as mood-prominent (7.6.2) languages. Exceptions to the ordering hypothesis about these markers may also arise in a similar fashion (see 7.6.3).

7.6.1   *Tense-prominent languages*

I have already pointed out, in the previous chapter (see 6.2.1), instances of tense-prominent languages in which the past/non-past tense distinction forms the basis of the most complex verbal allomorphy. Markers of aspect and mood distinctions do not show any comparable allomorphic complexity in these languages. They actually occur in the peripheral area of the verbal system, either in the form of truncated paradigms or as compound verb constructions. It is tense rather than aspect that is closest to the verbal base in these languages. The specification of tense is obligatory for the use of the verb not only in its predicative function, but also in several other functions like the nominal, adjectival and adverbial, as I have pointed out in the previous chapter.

The prominence that the category of tense receives in these languages has the effect of relegating aspect and mood to areas that are away from the verb. For example, the aspect distinction between bounded event versus unbounded event (perfective versus imperfective) is expressed in Finnish by the distinction in the case markers that occur with one of the arguments of the sentence. (The distinction, however, can also be indicated in this language by the semantics of the verb or by the use of certain derivative affixes or adverbial phrases.) Heinämäki (1994) considers this aspect distinction of Finnish to be the semantic property of the whole sentence rather than merely the property of the verb (see also Sulkala and Karjalainen 1992). Consider, for example, the following sentences given by the latter:

(19)   a.   *outi luki   kirjan*
            Outi read (PAST) book (ACC)
            'Outi read a book'

b. *outi luki   kirjaa*
   Outi read (PAST) book (PARTITIVE)
   'Outi was reading a book'

Notice that the sentence (19a), in which the object occurs in the accusative case, denotes a bounded (perfective) event, whereas (19b), in which the object occurs in the partitive case, denotes an unbounded (imperfective) event.

There is a similar encoding of modal distinction by case markers, occurring in Havyaka, a dialect of Kannada. The modal meaning of necessity can be denoted in this dialect by adding the suffix *ekku* 'must' (which has the negative equivalent *aDa* 'do not' or 'need not') directly to the verbal base. One of its arguments can occur either in the nominative or in the dative; in the former case, the need or compulsion is external, whereas in the latter case, it is internal. Examples:

(20) a. *aːnu   manege hoːy-ekku*
        I (NOM) home   go-must
        'I must go home' (I am being forced to go home)

     b. *ena-ge manege hoːy-ekku*
        I-DAT home   go-must
        'I must go home' (I desire to go home)

7.6.2   *Mood-prominent languages*

As I have pointed out in the previous chapter (see 6.4.1), there are mood-prominent languages like Chalcatongo Mixtec in which the distinction between realis and irrealis (or potential) is grammaticalized to a very high degree. Compared to this modal distinction, tense and aspect distinctions are grammaticalized to a lesser extent in these languages. Further, these latter distinctions are denoted by markers that are attached to stems that are already marked for modal distinctions. In Chalcatongo Mixtec, for example, there is a temporal prefix *a* 'already, now', and a completive *ni* both of which are attached to the realis stem; there is also a repetitive (iterative) *na* which is attached to the potential stem. Examples (Macaulay 1996: 62, 74):

(21) a. *ni-caà=rí*   *beʔe=ró*
        COMP-arrive(REALIS)=1 house=2
        'I arrived at your house'

b. *a-ni-kušíní=zó*
    Already-COMP-eat(REALIS)=1PL
    'We already ate'

c. *káta*   'sing'   *na-kata*   'sing again'
    kaka   'walk'   *na-kaka*   'walk again'

Kendall (1997) reports that Takelma has two types of verb stems, called assertive and indeterminate, whose formation (from verbal roots) may involve processes like reduplication, vowel lengthening, consonant alternation, suffixation, or some combinations of them. By using the assertive stem, the speaker claims first-hand knowledge of the topic, and within this setting, the assertive is used for past, present, and immediate future. The indeterminate stem is the base for all other forms, including nominal derivation. Generally assertive stems are of C_1VC_2V pattern and the indeterminate stems are of C_1VVC_2 pattern. The stems occur with certain suffixes called "petrified suffixes", of which *-c'* in most cases denotes perfective aspect and the suffix *n* denotes durative aspect. There is also the suffix *-k'* which is strongly associated with the perfective. The point, which is of interest here, is that the modal distinction gets expressed by a classification of the stem itself, and the aspectual distinction by suffixes that are attached to the stem. That is, in this mood-prominent language, modal distinction is fused with the verbal base whereas aspect distinctions are only attached to it in the form of suffixation.

Another interesting case is that of Wintu, a language spoken in northern California, and belonging to the Penutian stock. According to Pitkin (1984: 61), modals, involving a distinction between indicative (real or actual events) and non-indicative (imperative or non-actual events), are central to the inflectional system of the verb in this language. The aspectual distinction between generic and particular, on the other hand, is denoted not in the verb but in the substantives. This distinction, however, resembles aspects of verbs in function to the extent that the "particular" aspect of nominal forms (marked by the suffix *t*) implies finiteness or specificity like the perfective aspect in verbs of other languages, while the "generic" aspect of nominal forms (marked by the suffix *s*) implies an extensiveness or generality like the imperfective and durative of verbs of other languages (see Pitkin 1984: 106).

7.6.3   *Relative order of category markers*

There have been several attempts, recently, to establish theoretical claims

regarding the relative order of tense, aspect and mood markers in verbal constructions. The general consensus among the scholars concerned is that the aspect markers tend to occur closest to the verb (either preceding or following it), with tense markers occurring next to them, and mood markers forming the outermost constituent. That is, the order, according to these scholars, would be mood-tense-aspect-verb in the case of VO languages and verb-aspect-tense-mood in the case of OV languages (see Foley and Van Valin 1984, Bybee 1985, Hengeveld 1989, Dik 1989, Siewierska 1991, Van Valin 1993).

Foley and Van Valin (1984) consider it possible to derive the above-mentioned ordering tendency of verbal categories by establishing a correlation between what they call "levels" of clause structure on the one hand, and the markers of tense, aspect and mood on the other. They argue (1984: 208) that there is a need to distinguish between three different levels for clause structure as shown below:

(i)   **Nucleus** (predicate), which is the innermost layer in the clause,
(ii) **Core**, consisting of the core arguments of the clause (i.e. arguments which depend upon the valency of the verb), and
(iii) **Periphery**, consisting of all the remaining constituents of the clause (such as its spatio-temporal settings).

The grammatical categories of tense, aspect and mood are considered to be the "operators" which modify these layers, having scope over one or more of them. According to Van Valin (1993), nucleus operators modify the action, event or state itself, without reference to the participant, whereas core operators modify the relation between a core argument (normally the actor) and the action. Peripheral (or clausal) operators, on the other hand, may modify either (i) a single clause or (ii) a sentence (that may contain one or more clauses) as a whole; and depending upon this factor, clausal operators may be divided into two distinct subgroups called inner and outer operators.

Foley and Van Valin (1984: 209) argue that the category of aspect is to be regarded as a nuclear operator because it is not directly concerned with the participants of the event; it simply expresses the temporal structure of the event, without reference to anything else. Tense, on the other hand, is to be regarded as a peripheral operator, because it is concerned with the grounding of the reported event in the real world, as it expresses the temporal orientation of the event with regard to the present act of speaking. This difference in the levels to which the aspectual and temporal operators belong is considered to get reflected in the

relative ordering of the morphemes that represent those operators. A nuclear operator (aspect) would occur closer to the nucleus (verbal base) as compared to a peripheral operator (tense). Foley and Van Valin find the category of mood to be rather problematic in this respect because it appears to divide itself into

(i)   Modality (ability, obligation and intention),
(ii) Status (actuality — realis-irrealis),
(iii) Evidential, and
(iv) Illocutionary force

They consider it necessary to assign the first one to the core, and the rest to the periphery. Van Valin (1993) regards the last two as belonging to the "outer" layer and the second one (status), along with tense, as belonging to the "inner" layer of the peripheral (clausal) level.

Notice, however, that similar problems can arise in the case of aspect and tense categories as well. In the case of tense, for example, there is the distinction between deictic and non-deictic tenses with the former, but not the latter, being dependent upon the utterance time (i.e. the time connected with the participants of the speech act). This distinction can affect the relative ordering of tense, aspect and mood markers as shown by the fact that in Kannada, non-deictic tense markers can occur between verbal bases on the one hand, and the aspect or mood markers on the other, (with the latter being represented by vector and modal verbs respectively) whereas the deictic tense markers (suffixes) can occur only after the aspect and mood markers (see 2.3).

In the case of aspect also, there is the well-known distinction between aktionsart and aspect, with the former denoting, according to some scholars (see Smith 1986, Platzack 1979) the inherent aspectual characteristics of events or actions, and the latter denoting the speaker's viewpoint in this regard. Hengeveld (1989: 134) finds this distinction to be relevant for determining the relative order of verbal affixes; the operators which affect changes in the aktionsart distinctions like stative, telic, momentary etc. (i.e. operators such as the ones which change statives into dynamics) appear, according to him, to belong to the innermost layer of the clause (called by him as "predicate operators"), whereas others like iterative and semelfactive appear to belong, along with tense markers and markers of objective modality (possible-impossible, realis-irrealis and acceptable-forbidden) to an outer layer called "predication operators". The aktionsart distinctions proper, like stative, telic and momentary, however, are considered by him to be defining the typology of situations.

What I wish to point out in this connection, however, is that in addition to the factors mentioned above, the actual ordering of category markers can also be affected by the relative prominence that languages give to those categories. That is, even though one expects aspect markers to occur closer to the verb than tense markers (on the basis of language-universal tendencies), one may find tense markers to be occurring closer to the verb in the case of some of the tense-prominent languages as a result of the greater prominence that the languages attach to tense.

One interesting point that supports this claim is the fact that the most prominent category in a given language would be grammaticalized to a greater degree than other categories. That is, the most prominent category would be represented by inflectional markers, which are closest to the verbal base, whereas other categories would be represented by particles or clitics, or by auxiliary verbs, which are less close to the verbal base than inflectional markers. It is possible for diachronic changes to affect such languages in such a way that the particles or auxiliaries get reduced to affixes and as a result, there may arise a situation in which an inflectional affix that marks tense occurs closer to the verb than one which marks aspect. Such a change has apparently occurred in Havyaka, a dialect of Kannada. It has a suffix *kku* denoting completeness which occurs after the prior tense suffix; this suffix has probably developed from an earlier vector verb (cf. Old Kannada *ikku* 'to put'), which is attached to the converbial form of the main verb, occurring in the non-deictic prior tense. Examples:

(22) a. *avã ada-ra tinn-ali*
        he it-ACC eat-let
        'Let him eat it'
     b. *avã ada-ra tin-d-ikk-ali*
        he it-ACC eat-PRIOR-COMP-let
        'Let him finish eating it'

The prior tense suffix is functional in this usage in that it helps to differentiate between modal and aspectual connotations; that is, prior converbs occur when the vector verbs denote an aspectual meaning, whereas posterior converbs occur when the they denote a modal meaning. Examples:

(23) a. *avã ada-ra tin-du-biDu-gu*
        he it-ACC eat-PRIOR-COMP-may
        'He may eat it off'

b. *avã ada-ra tinb-al-akku*
    he   it-ACC eat-POST-allow
    'He is allowed to eat it'

Even when two different categories are represented by the same type of grammatical elements, the closeness of one of them to the verbal base may depend upon the category to which the language under consideration attaches greater prominence. For example, in Lahu (Matisoff 1973), which is a mood-prominent language, the notion of aspect, directionality, subjective attitude towards the verbal event, etc. are conveyed by a set of particles that follow the verb. There are over twenty particles of this type that may be divided into four subclasses on the basis of their syntactic and semantic properties, especially their privileges of occurrence. The four groups represent

(i)   Directionality (like motion towards or away from the centre of interest)
(ii)   Subjective attitudes (like desiderative, experiential and asserative of reality)
(iii) Aspectual distinctions (like completed, durative and inchoative), and
(iv)   Different grades of imperatives (suggesting, urging, ordering, etc.)

Matisoff (1973: 315) points out that particles of group I may be followed within the same verb phrase by particles belonging to each of the other groups, but particles of group III may also be *preceded* by those of group II. That is, the general tendency is apparently for the mood particles denoting subjective attitude to be closer to the verb than those of aspect.

There are also certain verbal roots, in Lahu, that can immediately precede or follow the main verb (before taking the above-mentioned particles) in order to provide additional modal and aspectual connotations. Matisoff (1973: 200) calls these as "versatile" verbs. The relative ordering of these, however, is rather free. That is, the versatile verbs (which may denote aspectual meanings like continuative, completive, durative, etc.) may occur in-between, before or even after other versatile verbs which denote modal meanings like ability and potentiality (see Matisoff 1973: 217).

Ladakhi (Tibeto-Burman) is another mood-prominent language in which verbs take several "orientation" suffixes like reportive, observed, narrative, experiential and inferential. These may be of different varieties like fact-based, based on general habit, based on something that is not remembered clearly, guessed about something that is not seen clearly, etc. Some of these can be marked for past tense by the suffix *pin* occurring after them; some of them can also be marked for continuity by the suffix *yin*, which precedes the orientation

suffixes. Most of these forms can also show certain modal distinctions like abilitative, desiderative, permissive and compulsive by the use of certain additional suffixes which, however, are placed between the verbal base and the various tense-aspect-orientation suffixes (Koshal 1979: 184). The following sentence illustrates the occurrence of the continuity (aspect) suffix after the modal (abilitative) suffix in a verbal form (Koshal 1979: 228):

(24)   *stəə   chu   bin-thub-bin-yot-kək*
       horse water cross-Abi-CONT-PRES-NARRATIVE
       'The horse had been able to cross the water'

Notice that the abilitative suffix *thub* occurs between the verb *bin* 'cross' and the continuative suffix *bin (<yin)* in (24). There is, however, a problem here, concerning the status of orientation suffixes; they also occur (with the relevant aspect and tense markers) in nominal sentences and are translated as different forms of the verb 'to be' (Koshal 1979:185); it is not clear, therefore, whether they need to be treated as independent auxiliaries in these verbal forms.

Ladakhi also makes a distinction in the case of its verbal forms between honorific and non-honorific stems either by using distinct verbal roots or by adding an honorific suffix (*dzəd*) to them; this suffix occurs closer to the verb than the tense and aspect suffixes. Examples (Koshal 1979:250).

(25)   a.   *khoe spechə di-ət*
            he   book   read-REPORTIVE
            'He reads a book'
       b.   *khonni   chəkspe   di-ədzədd-ət*
            he (HON) book (HON) read-HON-REPORTIVE
            'He reads a book' (honorific)

However, the so-called secondary modal suffixes (see 4.3) can occur either before or after this honorific suffix. Examples (Koshal 1979: 254):

(26)   a.   *khonni   cəkspe   di-ədzət-thub-ət*
            he (HON) book (HON) write-HON-able-REPORTIVE
            'He can write a book' (honorific)
       b.   *khonni   cəkspe   di-thubb-ədzədd-ət*
            he (HON) book (HON) write-able-HON-REPORTIVE
            'He can write a book' (honorific)

According to Abraham (1985: 95), particles denoting progressive (continuing

action) and perfect (completed action) aspects in Apatani (a language that belongs to the Abor-Miri-Dafla branch of the Tibeto-Burman family) follow the verbal base and the tense markers, whereas the particles denoting completive (action with a completed object), semi-completive (action with a partly completed object) and inceptive (action begun) aspects occur between the verbal base and tense markers. Examples:

(27)   a.   *lu-lyi-do*
              talk-FUT.PROMIXAL-PROG
              '(He) was talking'

        b.   *lu-ne-ku*
              talk-PAST (NON.PROXIMAL)-PERF
              '(He) has talked'

        c.   *mó lu-ja-ne*
              he talk-COMP-PAST (NON.PROXIMAL)
              'He finished talking'

        d.   *mi-ŋó-ne*
              do-INCEPTIVE-PAST (NON.PROXIMAL)
              '(Hi) did half of it'

Hagman (1973: 129) refers to a phenomenon called "tense movement" occurring in Nama Hottentot; the language appears to be tense-prominent as the use of tense-markers, but not that of aspect or mood markers, is obligatory. There are five tense markers in this language, namely *kè* 'remote past', *kò* 'recent past', *nií* 'future', *kà* 'indefinite' (in the sense that the occurrence of the event itself is indefinite), and an unmarked 'present'. Generally, tense markers precede the verbal base, and the perfective aspect marker follows it, but when tense movement occurs, the tense marker follows the verb and thereby comes in-between the verb and the perfective aspect marker.

7.7 Differing points of view

I had suggested earlier that languages that give greater prominence to one of the three verbal categories tend to view concepts belonging to other categories in terms of their prominent category. They also tend to represent them as facets of their own prominent category. Consider, for example, the way in which Kannada encodes aspectual and modal distinctions through its verbal auxiliary system. In

the case of aspectual distinctions like completive, the auxiliary verbs (or vectors) are attached to the prior tense forms (past converbs) of the main verb, whereas in that of modal distinctions like ability and possibility, the auxiliary verbs are attached to the posterior (infinitive) forms of the main verb. That is, aspectual distinctions are viewed as facets of the non-deictic prior tense whereas modal distinctions are viewed as facets of the non-deictic posterior tense. Some aspectual notions like progressive and habitual, on the other hand, are encoded by attaching the auxiliary to the simultaneous (present converb) form of the main verb, and are apparently viewed as facets of the non-deictic simultaneous tense.

(i)   Completive with prior tense:

    (28)   a.   *a: hakki ha:ritu*
                 that bird   flew (PAST.3NEUT:SG)
                 'That bird flew'

           b.   *a: hakki har-i   biTTitu*
                 that bird fly-PRIOR COMP (PAST.3NEUT:SG)
                 'That bird flew off'

           c.   *a: hakki ha:r-i   biTTi:tu*
                 that bird fly-PRIOR COMP (SUBJ.3NEUT:SG)
                 'That bird might   fly   off'

(ii) Abilitative with posterior tense:

           d.   *a: hakki ha:r-a-balludu*
                 that bird   fly-POST-can (3NEUT:SG)
                 'That bird can fly'

(iii) Progressive with simultaneous tense:

           e.   *a: hakki ha:r-utt-ittu*
                 that bird   fly-SIMUL-be (PAST.3NEUT:SG)
                 'That bird was flying (when I looked up)'

An interesting consequence of this temporal treatment of aspect and mood distinctions in Kannada is that the negative word *illa* 'not (existential)', being regarded as part of the modal category, is attached to the posterior form of the main verb. That is, the combination of posterior converb and the negative word provides "past" negative meaning as can be seen in the following sentence:

(29) a. *a: hakki ha:r-al-illa*
          that bird fly-POST-NEG
          'That bird did not fly'

Kannada attaches the negative word *illa* 'not' to a derived nominal (in its non-past form) in order to indicate the meaning of non-past (or habitual) negation as shown below:

(29) b. *a: hakki ha:ru-v-ud-illa*
          that bird fly-NON.PAST-it-not
          'That bird does not fly'

(30)   *na:nu allige ho:gu-v-ud-illa*
          I   there go-NON.PAST-it-not
          'I do not/will not go there'

In Ainu, a language isolate of Japan, temporal concepts are viewed from the aspectual point of view and are represented by aspect markers as their implicational connotations. Refsing (1994) argues that there are no morphemes in this language which have the specific function of marking tense in the verbal system; the language deals with time as aspect or actionality, or through the employment of other morphemes which carry out other more dominant functions. The language marks two different aspect distinctions, namely (i) between perfective and imperfective and (ii) between completed and incompleted. There are also certain auxiliaries, such as *a* 'durative', *moyre* 'be slow' (or 'late'), and *tunas* 'be fast' (or 'early') and certain suffixes like *pa* 'plural' (which can denote iterative meaning). Events, actions or states can be connected together in a sequential or contemporal relationship with the help of conjunctions like *konno* 'sequential'. These and certain other modal auxiliaries like hortative and intentional provide the basis for denoting temporal distinctions in this language.

Mood-Prominent languages, on the other hand, view temporal distinctions as facets of modal distinction. Pitkin (1984) points out, for example, that in Wintu (belonging to the Wintun family of the Penutian stock), the primary distinction in the verbal system is the modal one between what is actual and real (for which the "indicative" stem is used) and what is hypothetical and potential (for which the "imperative" stem is used) (see 7.6.2). The former may be translated with both past as well as present forms of English, but the meaning is primarily modal and not temporal. The case of Wintu is interesting for a different reason as well. Pitkin (1984) points out that originally, the personal

markers occurring in the verbal forms obligatorily showed only a two-way contrast between self (first person) and non-self. That is, it was also, basically a modal (evidential) contrast. This claim is strengthened by the fact that the first person (indicative) suffix *da* functions as an evidential suffix as well, indicating what is particularised as absolutely and reliably known to be true. It cannot occur in forms that indicate that something is being inferred or judged by the speaker (Pitkin 1984: 137):

(31) a. *hara.da*   'I am walking'
      b. *coyilake.ni* 'I am drunk (they say)'

A grammatical phenomenon called "flip-flop", by which verbal forms, when negated, appear to completely reverse their temporal or modal connotation, has been reported to occur in certain languages like Copala Trique (Hollenbach 1976) and Terena (Ekdahl and Grimes 1964). In the latter language, for example, every verb is in one of two modes, actual or potential. The actual is used for making definite statements about past or present events or definite observations about future, whereas the potential is used in imperatives and indefinite predications. There are two different negative markers in Terena, namely *ako* and *hyoko*. The former is used with the potential verbal forms but the meaning that it provides appears to be the actual, such as 'X did not do Y'. The latter (*hyoko*), on the other hand, is used with the actual verbal forms, but it appears to give potential meanings such as that of the negative imperative. Examples (Ekdahl and Grimes 1964: 268):

(32) a. *pih-óp-o*
          go-DIRECTIONAL-ACTUAL
          'He went to where he came from'
      b. *hyoko pih-ép-o*
          NEG   go-DIRECTIONAL-ACTUAL
          'Do not go where you came from'

(33) a. *pih-ép-a*
          go-DIRECTIONAL-POTENTIAL
          'Go back to where you came from'
      b. *ako pih-áp-a*
          NEG go-DIRECTIONAL-POTENTIAL
          'He did not go where he came from'

Honda (1996: 166) suggests that there is a natural explanation for this

pattern: We can view the situations 'X did Y' and 'X will not do Y' (or 'Don't do Y!') as two different ways of describing one and the same situation in which an event has taken place and therefore will not take place again (or need not be performed). Similarly, we can view the situations 'X did not do Y' and 'X will do Y' (or 'Do Y!') as two different ways of describing one and the same situation in which an event has not taken place and has therefore the potential to take place. What is interesting in the present context, however, is that these alternative ways of viewing negation derive from the fact that the languages under consideration, which are mood-prominent, perceive negation from a "modal" point of view. Notice that a comparable view of "current relevance" (or of perfect) occurs in Mao Naga as I point out below (see 7.7.1).

Cross-linguistic studies of certain concepts like perfect, future and habitual have given rise disputes and conflicting generalizations regarding their categorial status; I believe that the basis of these disputes is the above-mentioned characteristic of languages, namely that they view non-prominent verbal categories in terms of their prominent category. I propose to examine some of these disputes below in order to show that they allow explanations on the basis of the typological classification that is under consideration here.

7.7.1   *The concept of perfect*

The question as to whether the notion of perfect is to be included under the category of tense or of aspect (or of neither of them) has given rise to a dispute in linguistics. Traditionally, perfect is regarded as a tense, along with past, present, future and pluperfect. In Reichenbach's (1947) theory of tense, for example, both perfect as well as pluperfect get interpreted, along with past, present and future, as distinct tense forms. All of them are described in terms of three distinct parameters, namely an event time, a reference time and a speech time. Perfect differs from past, according to this formulation, by the fact that reference time overlaps with event time in the case of past tense, whereas in that of perfect tense, reference time overlaps with speech time. The three points of time are distinct from one another in the case of pluperfect tense.

Comrie (1985: 78) argues, however, that this formulation cannot be correct. The difference between past and perfect does not involve a difference in the "location in time" of an event; both of them, according to him, denote an event which is located prior to the present moment (speech time). Consider, for example, the following two sentences:

(34)   a.   *I lost my penknife.*
        b.   *I have lost my penknife.*

The crucial difference between the two sentences given above is that the past form in (34a) merely indicates the time of a given event (namely that it is earlier than the time of uttering the sentence), whereas the perfect form in (34b) has an additional meaning, namely that the effect of that event (*the loss of penknife*) still persists at the time of speaking. Comrie considers this additional meaning ('current relevance') to be the basic meaning of the perfect form and hence he argues that it falls outside tense theory.

Salkie (1989: 5), on the other hand, argues that pluperfect also involves a similar notion in that the event denoted by it needs to be relevant at the time denoted by the reference point. Consider, for example, the following sentence:

(35)   a.   *He died after he had been ill for a long time.*

Notice that the event described by the pluperfect form in (35a) (*he had been ill*) has an obvious relevance to the event in the simple past that precedes it. This is shown by the fact that the pluperfect form cannot be replaced by a past form without making the resultant sentence bizarre as shown below:

(35)   b.   **He died after he was ill for a long time.*

Salkie (1989: 6) is of the opinion that this notion of relevance is only an implicational one, and that the basic meaning of perfect or pluperfect is only one of tense.

There are several other ways in which the notion of perfect is described by different scholars. For example, Mourelatos (1981: 194) suggests that perfect is the encoding of the "phase" of time reference, whereas Givón (1984: 278) argues that perfect is by far the most complex "tense-aspect", as it involves (i) tense elements such as time-axis, sequentiality and precedence, (ii) aspectual elements like perfectivity (accomplishment) and also (iii) certain categories outside the tense-aspect-mood system, such as the passive and the notion of stativity. Brinton (1988: 6) suggests further that perfect has aspectual meanings of result, current relevance, and completion, and other meanings like indefinite past, embedded past and extended now.

I would like to suggest in this connection that these divergent views about the nature of perfect derive partly from the complexity of the notion involved, but partly from the fact that languages differ from one another in viewing or encoding that notion. My claim is that tense-prominent languages view and

encode it from the point of tense, aspect-prominent languages from that of aspect, and mood-prominent languages from that of mood. Notice that the definition of the notion of perfect that is generally given provides us only with a "temporal" (or tense-oriented) view of this notion. We can also have aspectual and modal definitions of this notion, as shown below:

The notion of Perfect:

(i)   Temporal view: past event with current (present) relevance
(ii) Aspectual view: completed (perfective) event with continuing (imperfective) relevance
(iii) Modal view: realis event with irrealis relevance (something needs to be done)

The question as to whether perfect is a tense, aspect or mood (or none of the three) can therefore be answered only with reference to the language in which it is being expressed. Depending upon the prominence that the language attaches to tense, aspect or mood, we can expect the notion to be expressed as a temporal, aspectual or modal category respectively.

(a)   Tense-Prominent languages:

The notion of perfect, and also that of pluperfect and future perfect, is indicated in Dravidian languages by a combination of non-deictic and deictic tense forms. These constructions are primarily temporal rather than aspectual or modal both in their formation as well as usage. In Kannada, for example, a temporal adverbial can be associated with either of the two tense forms (non-deictic and deictic) that occur in these constructions. Examples:

(36)   *na:nu ninne   mu:ru gaNTe-ge band-idde:ne*
       I   yesterday three hour-DAT come (PRIOR)-be (PRESENT)
    *'I have come at three o'clock yesterday'

(37)   a.   *na:nu ninne   mu:ru gaNTe-ge kuLit-idde*
          I   yesterday three hour-DAT sit (PRIOR)-be (PAST)
          'I have sat at three o'clock yesterday'

     b.   *na:nu ninne   mu:ru gaNTe kuLit-idde*
          I   yesterday three hour   sit (PRIOR)-be (PAST)
          'I had sat for three hours yesterday'

Notice that the temporal adverbial in (36) and (37a), namely *ninne mu:ru gaNTe-ge* 'yesterday at three o'clock' modifies the prior form of the main verb,

whereas the one in (37b), namely *ninne muːru gaNTe* 'yesterday for three hours' modifies the present form of the auxiliary verb. The claim that the constructions are primarily temporal in nature also gets supported by the fact that they form part of a whole paradigm of auxiliary constructions involving prior, simultaneous and posterior forms of the main verb and past, present and future forms of the auxiliary verb, as I have shown in the second chapter (see Table 1 in 2.4.1).

Other Dravidian languages also have auxiliary constructions of the above type, in which the deictic tense forms of the auxiliary verb are attached to the non-deictic tense forms of the main verb, which are used for denoting perfect and pluperfect meanings (see, for example, Winfield 1928 on Kui, Krishnamurti (1969) on Konda, and Hahn 1908 on Kurukh). The auxiliary form is reduced to a suffix in some of them like Malto (Mahapatra 1979) and Parji (Burrow and Bhattacharya 1953), but they continue to function as tense forms contrasting with other tense forms occurring in the language under consideration.

The formation of perfect is similar in Finnish as well. According to Sulkala and Karjarainen (1992: 297), a compound tense form, derived by joining the present form of the verb *olla* 'to be' with the past participle of the main verb, provides the perfect meaning whereas another compound tense form, derived by joining the past form of the same verb with the past participle of the main verb, provides the pluperfect meaning. Both are regarded as tense forms in Finnish. Examples:

(38)   *he   ovat   matkusta-nee-t   somaliaan*
       they be (NEUT.PAST)-3PL travel-PAST (PARTICIPLE)-PL Somalia
       'They have travelled to Somalia'

(39)   *viime kevään minna oli   ollut   tallinnassa*
       last   spring Minna be (PAST, 3SG) be (PAST PARTICIPLE) Tallinna
       'Minna had been to Tallinna last spring'

Notice that in both Kannada as well as Finnish, the most prominent concept in these "perfect" constructions is the past/non-past tense distinction. For example, the notion of relevance, in the case of present perfect, can only be non-past; it cannot be past. This is also true of the perfect construction of English.

(b)   Aspect-prominent languages

Some of the aspect-prominent languages, on the other hand, appear to derive their "perfect" forms by combining verbal forms that denote perfective aspect with the ones that denote imperfective aspect. For example, in Supyire, an

aspect-prominent language, perfect is formed by attaching the auxiliary *à* to the perfective form of the verb; this perfect auxiliary, according to Carlson (1994: 337) derives from an original **mà* which seems to have developed from the imperfective form of a verb meaning 'come'. Examples:

(40)   a.   *u   à   pa   táñjáà*
            he PERF come (PERF) yesterday
            'He came yesterday (and is still here)'
       b.   *u   ná   m-pá   tàñjáà*
            he PAST (Remote) INTR-come yesterday
            'He came yesterday'

Carlson points out that the typical perfect is perfective in Supyire, as it can be derived only from a perfective form of the verb; further, there is no equivalent of "perfect progressive" in this language.

In Maltese also, perfect is viewed as a facet of the perfective aspectual form. According to Fabri (1995), when the perfective form is used on its own, it can denote past events with or without current relevance; further, when used with the past auxiliary *kein* and future auxiliary *ikun*, it has meanings that resemble the past perfect and future perfect of English respectively. Examples:

(41)   a.   *fis-s-sitta mikiel   kien diga   kiel*
            in-DEF-six Michael PAST already eat (PERF)
            'At six, Michael had already eaten'
       b.   *fis-s-sitta mikiel   ikun diga   kiel*
            in-DEF-six Michael FUT already eat (PERF)
            'At six, Michael will have already eaten'

Even in the case of other aspect-prominent languages, perfect occurs as a part of the aspectual paradigm, and is therefore to be regarded as belonging to the aspectual category. For example, Mundari distinguishes between a set of four perfective aspect markers and a set of two imperfective aspect markers; the former includes the perfect *ja* (which also has the phasal (ingressive) meaning 'start') along with three completive suffixes (see 3.2). Example:

(42)   *senz-ja-na-ko*
       go-PERF-INTR-PRED-3PL
       (a)   'They have just gone'
       (b)   'They have started going'

Similarly, in Tongan, a Polynesian language, perfect is part of the aspectual system. There is a three-fold contrast in this aspectual system, with perfect forming part of this contrast as shown below (Pyne 1985):

na'e   completed and non-continuing
kuo   completed and continuing (perfect)
'oku   non-completed and non-continuing (habitual or future)

(c) Mood-prominent languages

In contrast to the above two types of languages, mood-prominent languages appear to treat the notion of relevance as a modal concept. For example, Mao Naga has two different suffixes, namely *Ti* and *oTi*, which can be translated in some of their usages as present perfect and past perfect, as can be seen from the following pairs of sentences: Examples (Giridhar 1994: 299):

(42) a. *ole apru-Ti-e*
          pot break-RELEVANT-PRED
          'The pot has broken' (It is still in the broken state)

      b. *ole apru-oTi-e*
          pot break-IRRELEVANT-PRED
          'The pot had broken' (It is no longer in the broken state)

(43) a. *tasoni ocü   vu ta-Ti-e*
          Tasoni home go.away-RELEVANT-PRED
          'Tasoni has gone home (and is not here)'

      b   *tasoni ocü   vu ta-oTi-e*
          Tasoni home go.away-IRRELEVANT-PRED
          'Tasoni had gone home (but is back here)'

However, from a language-internal point of view, the two appear to denote the notions of "current relevance" and "current irrelevance" respectively of the event that is being stated, with the notions being not constrained by any temporal distinctions. This claim is supported by the fact that the two suffixes are different from the two perfect forms of English on several points. Both of them can denote events that had occurred prior to some other event, but still, the two differ from one another in these usages with regard to the relevance that the speaker attaches to (the result of) the event. Examples (Giridhar 1994: 300):

(44) a. *ai idu   ni   cü   he.vue ana ni   ozhi-Ti-e*
          I yesterday your house came but you sleep-RELEVANT-PRED
          'I came to your house yesterday but you had slept'

      b. *ai idu   ni   cü   he.vue ana ni   ozhi-oTi-e*
          I yesterday your house came but you sleep-IRRELEVANT-PRED
          'I came to your house yesterday but you had slept and were up'

The prominence that the language attaches to the modal facet of relevance (as against its temporal and aspectual facets) gets reflected in the fact that a speaker can use the suffix *Ti* in several types of contexts in which the event is felt by him to be relevant, and the suffix *oTi* in contexts in which he regards the event to be not very relevant. For example, *oTi* is used in contexts in which an action has been done away with, and therefore nothing more need to be done about it. Examples (Giridhar 1994: 302):

(45) a. *ai pfoyi da-oTi-e*
          I him beat-IRRELEVANT-PRED
          'I have beaten him' (so there is no need (for you) to think of beating him)

      b. *ai pfo   oko   hinahi ayi pe-oTi-e*
          I father story this   me told-IRRELEVANT-PRED
          'My father has (already) told me this story' (so don't narrate it to me)

The relevant suffix *Ti*, on the other hand, is used in contexts in which an action has been accomplished (contrary to earlier expectations) and is therefore felt to be very relevant. Examples (Giridhar 1994: 326):

(46) a. *kaikho ico coho colo-Ti-e*
          Kaikho now can   hear-RELEVANT-PRED
          'Kaikho can hear now (he couldn't hear earlier)'

      b. *kolamüinati otu   to-Ti-e*
          plainsman   beef eat-RELEVANT-PRED
          'The plainsman ate beef' (he hadn't earlier)

When used with the irrealis (future) suffix *le*, the irrelevant suffix *oTi* provides the meaning 'would have' and the relevant suffix *Ti* indicates definiteness or decisive intention. Examples (Giridhar 1994: 304, 315, 323):

(47)   a.   *pfo khivu-oTi*   *le*
             he return-IRRELEVANT IRREALIS
             'He would have come back'

       b.   *pfo khivu-Ti*   *le*
             he return-RELEVANT IRREALIS
             'He will be coming back'

       c.   *pfohi thi-Ti*   *le*
             he   die-RELEVANT IRREALIS
             'He will surely die'

       d.   *ata izho   okho bo-Ti*   *le*
             we today fish   cook-RELEVANT IRREALIS
             'We intend to cook fish today'

Giridhar (1994) considers these different uses of the suffixes *Ti* and *oTi* as representing different homophonous aspectual and modal suffixes, but I think this is not necessary. The usages indicate, instead, that the notions of relevance and irrelevance function as part of the modal category in this language.

(d)   Constraints on the occurrence

My claim that the concept of "perfect" is being viewed by languages from the point of view of their prominent category is supported by the various constraints shown by these languages on the occurrence of their respective perfect forms. These constraints appear to depend upon the most prominent category. For example, Comrie (1976: 62) points out that English allows its perfect to occur with the progressive (as in *I have been singing*) but Ancient Greek does not. And as we have seen above, Supyire also does not have a perfect progressive. On the other hand, English does not allow the perfect construction to occur with a past adverbial; that is, in this latter case the constraint is temporal rather than aspectual. (Kannada allows such an adverbial to occur with its "perfect" construction (see 2.4.1) because it is more phrasal as compared to that of English, and the adverbial can directly modify the non-finite verb.

7.7.2   *The concept of future*

There is also a controversy concerning the categorial position of the concept of future, which is comparable to that of perfect described in the previous section. Since "future" has the primary function of expressing, grammatically, the temporal location of a given event or state (namely that the event or state is

subsequent to speech time), it clearly forms part of the category of tense. But several linguists have argued that the concept is at least partly modal in nature because, according to them, future, unlike past or present, is necessarily speculative. They point out that any statement that we make about future necessarily includes an element of prediction in the sense that it might be changed by intervening events, including our own conscious intervention (see Lyons 1977: 677, Fleischman 1982: 14, 24, Comrie 1985: 42, Chung and Timberlake 1985: 204, Dahl 1985: 103). According to Bybee, Perkins and Pagliuca (1994: 280), future is less a temporal category and more a category resembling agent-oriented and epistemic modality, with important temporal implications. They derive this claim from the fact that future markers appear to develop out of lexical items that denote desire, obligation, attempt or ability. (The markers may also develop out of constructions involving movement verbs or temporal adverbs.) Further, they find the focal use of the future form to be the *prediction* on the part of the speaker that the event is to occur after the moment of speech.

This variability in the use of verbal forms between two or more verbal categories, however, is not a peculiarity of the future tense form. We find similar variability in the use of other verbal forms as well, such as for example, the present, which is used quite frequently for denoting the aspectual notion of habitual or progressive. Bybee, Perkins and Pagliuca (1994: 141) suggest, in fact, that present may "accurately" be described as present imperfective, (i.e. as an aspect rather than tense). The past, which is used for denoting completive (perfective) actions, and the perfective, which is used for denoting past actions, also show cross-category variations (see Wallace (1982: 202) and Bache (1995: 267) for a similar opinion). In the case of future, however, there is an added problem caused by the fact that grammarians have been describing modal forms as tense forms. That is, languages which actually show a past/non-past tense distinction, and have an additional subjunctive form, have been described as having a past-present-future tense distinction (as in the case of some of the Dravidian languages) leading to the problem of having a future "tense" form which is unlike other tense forms.

What I am suggesting here is that the notion of future, if it does occur in a language, would be temporal or modal depending upon the prominence that the language attaches to the categories of tense and mood respectively. If a tense-prominent language has a distinct future form, we can expect it to function primarily as a tense form, with the modal connotations occurring only as its implications; in the case of a mood-prominent language, on the other hand, such

a form would primarily be a modal one. For example, in a tense-prominent language like Kannada, future is denoted by the non-past tense form, whereas in an aspect-prominent language like Navajo, it is denoted by a marker which occurs along with usitative, iterative, and optative, in contrast with the perfective-imperfective aspect distinctions. That is, future and optative are part of the aspectual system in this latter language (see Smith 1991: 428). In a mood-prominent language like Muna, on the other hand, future is part of the modal system, and is being represented by the irrealis suffix, contrasting with the realis suffix, which denotes past or present events (Van der Berg 1989).

7.7.3   *The concept of habitual*

Another disputed concept of the above type is habitual which, according to Comrie (1985: 40), can be (i) tense, as it involves location of a situation (event or state) across a large slice of time, (ii) aspect, as it refers to the internal temporal contour of a situation — a situation that occupies a large slice of time — or (iii) mood, as it involves induction from limited observation about the actual world to generalization about possible worlds. As a result, the question as to whether habitual is to be regarded as tense, aspect or mood has given rise to a dispute. According to Dahl (1985: 96), habitual is a major aspect, a claim that is supported by data from German and Czech, whereas according to Bache (1982: 61, 1985), habitual is an aktionsart and not an aspect. Swahili, on the other hand, is claimed to have a habitual tense *hu* 'customary, recurring situations', contrasting with present and universal tenses, even though, as pointed out by Comrie (1985: 40), there is no reason for treating it as a distinction in tense rather than a distinction in aspect or mood.

The cross-linguistic variation that forms the basis of this dispute also appears to be correlatable with the typological distinction between tense-prominent, aspect-prominent and mood-prominent languages. For example, Kannada represents the habitual meaning indirectly with the help of its tense forms. It uses the non-past tense form for denoting the habitual meaning in general, and the more complex auxiliary constructions for denoting further temporal distinctions in the habitual. In this latter case, the habitual meaning is denoted by the non-deictic simultaneous tense form of the verb, and the fact as to whether the habitual is past, present or future is denoted by the three tense forms of the auxiliary verb *iru* 'to be'. Examples:

(48)   *avanu raːtri mane-ge   hoːguttaːne*
       he   night house-DAT goes
       'He (usually) goes home at night'

(49)   a.   *avanu aːfiːsi-ge   aToːda-lli hoːgu-tt-iddaːne*
            he   office-DAT auto-LOC go-SIMUL-be (PRES)
            'He goes to office by auto (nowadays)'

       b.   *avanu aːfiːsi-ge   aToːda-lli hoːgu-tt-idda*
            he   office-DAT auto-LOC go-SIMUL-be (PAST)
            'He (used to) go to office by auto'

       c.   *avanu aːfiːsi-ge   aToːda-lli hoːgu-tt-iruttaːne*
            he   office-DAT auto-LOC go-SIMUL-be (FUT)
            'He would (usually) be going to office by auto'

Maltese, an aspect-prominent language, on the other hand, uses its aspectual form for denoting the habitual meaning. Its bare imperfective is understood as being present habitual (which can, however, express the future if it occurs with an explicit time adverbial). Its past imperfective form expresses a habit in the past and corresponds to the *used to* form of English (Fabri 1995). In contrast to these, mood-prominent languages appear to view habitual either as realis or irrealis, providing two different modal facets of habitual events. For example, according to Macaulay (1996: 45), the uninflected realis stem can be used for denoting the habitual in Chalcatongo Mixtec, whereas according to Lichtenberk (1983), Manam uses its definite irrealis form for denoting sequences of customary, habitual events.

7.7.4   *The concept of negation*

Negation is generally contrasted with affirmation, providing a polarity distinction between positive and negative. It is also viewed primarily as a clausal concept, even though languages do differentiate between clausal and phrasal negations, as seen, for example, in the use of English *not* versus *un*. Aikhenvald and Dixon (1998) argue, on the basis of the assumption that negation is primarily clausal, that it would be unaffected by verbal categories like tense, aspect and evidentiality (or mood). This claim, however, appears to get contradicted by the fact that the typological distinction between tense-prominent, aspect-prominent and mood-prominent languages does have a bearing upon the representation of negation.

For example, Miller (1965) points out that in Acoma, negative is used only

when the speaker himself is involved in the event that is being negated (as a subject or object). That is, it is used only in contexts in which the speaker can vouch for the non-occurrence of the event. In other contexts, he uses the dubitative. We can consider this constraint as an evidentiality (or modal) constraint on the occurrence of negation. Another interesting case is that of Muna, referred to earlier (6.4.1), in which negative clauses obligatorily contain the irrealis verbal forms (Van der Berg 1989). A similar constraint has been reported to occur in Yimas, a Papua New Guinean language, in which the basic distinction of the verb is between realis and irrealis. It is only the irrealis that gets further divided into negative, potential and likely, denoted by the prefixes *ta-*, *ant-* and *ka-* respectively (Foley 1991: 251). We may contrast this with a constraint occurring in Russian, namely that the perfective is rarely used in the negative, which is an aspect-based constraint.

There is also a correlation between the prominence of verbal categories on the one hand, and the kind of morphemic distinction that is shown in the representation of negation on the other. For example, Lewo (Early 1994), a mood-prominent language, makes a two-fold distinction in its negative markers, between realis negative *ve* and irrealis negative *pe* (see 6.4.4). This is also true of several Tibeto-Burman languages. In Manipuri, for example, the suffix *roy* is used to negate a sentence in future tense and the suffix *de* for negating one in non-future tense. Examples (Bhat and Ningomba 1997: 248):

(50)   a.   *məhak ləphoy-du   ca-roy*
           he   banana-that eat-FEM:NEG
           'He will not eat that banana'

        b.   *məhak ləphoy-du   ca-de*
           he   banana-that eat-NF-NEG
           'He did not eat that banana'

The influence of mood on negation in a mood-prominent language can also be exemplified by the occurrence of a phenomenon called "flip-flop" in languages like Copala Trique and Terena, described earlier (see 7.7).

7.8   Foregrounding sequential events

An analysis of extended (especially narrative) texts has revealed that there is generally a distinction between the language of the actual story line and the

language of supportive material. Hopper (1979a) refers to the former as the foregrounded part of the narrative and the latter as the backgrounded part. He points out that the former involves events that succeed one another in the same order as their succession in the real world. The events are punctual rather than durative or iterative, and dynamic rather than stative. The latter (backgrounded part), on the other hand, involves events or states which are not in a sequence to the foregrounded events. They may be concurrent with them or may involve other temporal relations, as they provide information concerning the character-isation, description, motivation, etc of those foregrounded events (Hopper 1979a, b). Languages generally use one specific verbal form for encoding the fore-grounded events, and all the other verbal forms for the purpose of encoding the backgrounded material.

   The actual type of verbal form that gets selected for encoding the fore-grounded events, and also the category to which it belongs, appear to vary from one language to another. It seems possible to correlate this variation with the variation in the relative prominence that the languages give to one of the three verbal categories. That is, languages appear to select a verbal form that belongs to their most prominent verbal category for encoding the foregrounded material. For example, Kannada uses a tense form (either the finite past form or the prior converb) for denoting foregrounded events. Similarly, French uses the simple (narrative) past form for the same purpose (Hopper 1979b). Aspect-prominent languages, on the other hand, select an aspectual form, namely the perfective in contrast to the imperfective, for encoding the foregrounded events. This is the case with languages like Latin, Greek, Russian and other languages that have a primary perfective-imperfective aspectual distinction in their verbal system, as pointed out by Wallace (1982: 208).

   In the case of mood-prominent languages also, we find a similar tendency of selecting a form that belongs to the most prominent category, namely the realis in contrast to the irrealis, for encoding foregrounded events. For example, Evans (1995) points out that in Kayardild, the unmarked choice of the narrative is the verbal form which is inflected for the "actual", a form which stresses that the action described has been "instantiated" (speaker knows that the action is taking place or has taken place). This form is not concerned with locating the action in time.

   It is interesting to note, in this connection, that some of the aspect-promi-nent languages use an entirely different marker for denoting sequential events of a narrative that form the foregrounded part. It is possible that, in these languages,

the perfective form does not clearly indicate the sequential nature of the events that it denotes. For example, Supyire does not use its perfective form for encoding foregrounded material. Instead, it uses a special narrative/sequential auxiliary, which does not have past time reference per se. The language also has a special past tense marker that is used in the very beginning of a narrative (Carlson 1994: 328).

In spite of the fact that languages differ in their choice of the category for encoding the foregrounded material, a general consensus appears to have developed among linguists, namely that the aspectual distinction between perfective and imperfective is the most important and prototypical category distinction which forms the basis of this choice in all languages, with the perfective being used for foregrounding and imperfective for backgrounding. This appears to be the general assumption of several articles in Hopper (1982) and also other subsequent publications (see Herring 1993, Bybee, Perkins and Pagliuca 1994: 126). Herring (1993) makes use of this mistaken assumption as the basis of a claim that the Old Tamil past *tense* forms must be regarded as perfective *aspect* forms. This claim is based upon a survey of the use of verbal forms for foregrounding in Old Tamil texts. It was found that past tense forms (and also prior converbs (or past participles) which, however, are regarded as "lacking tense indication") are used for this purpose; since a strong correlation is claimed to exist between foregrounded events and grammatical marking by perfective aspect, it is argued that the past tense forms of Old Tamil must be aspectual and not temporal.

7.9   Paths of grammaticalization

Bybee, Perkins and Pagliuca (1994) examine the lexical sources of tense, aspect and mood markers occurring in different languages and try to establish paths along which these lexical items tend to get grammaticalized into inflectional (or derivational) affixes. They find copular verbs like 'be' and 'have', dynamic verbs like 'finish', movement verbs and also adverbials like 'away', 'up' and 'into' forming the sources from which resultatives and completives develop. They claim that these later on give rise to constructions which denote the notion of perfect (called by them "anterior"), which in its turn, gives rise to either the perfective aspect or past tense. Similarly, they find auxiliaries like 'sit', 'stand', 'lie', 'be at', 'stay' and 'reside', and locational markers like 'in', 'at' and 'on'

forming the sources of the progressive marker, which in its turn, gives rise to either the imperfective aspect marker or the present tense marker.

Perfect (anterior) ⟶ Perfective
              ⟶ Past

Progressive ⟶ Imperfective
           ⟶ Present
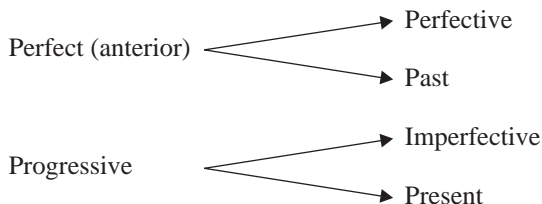
Bybee, Perkins and Pagliuca find this branching out of perfect and progressive into perfective-past and imperfective-present respectively to be rather puzzling. They suggest that past can be regarded as a more grammaticalized version of the perfective (1994: 91); present, on the other hand, is considered by them to be a specialised imperfective, i.e. one which is restricted to the present moment (1994: 126, 141).

I would like to suggest an alternative possibility, namely that the two branchings represent distinct developments in languages that give greater prominence to aspect and tense respectively. That is, we may assume that languages that give greater prominence to aspect than to tense develop a perfective form from an earlier perfect construction and an imperfective form from an earlier progressive construction, whereas languages that give greater prominence to tense than to aspect develop past and present forms directly from their perfect and progressive constructions respectively. It would not be necessary, according to this formulation, to assume that the latter type of languages necessarily undergo a change of the former type as an earlier stage of development.

Some of the Dravidian languages appear to support this claim; for example, Old Kannada had the suffix *dapa* for denoting past tense (which was formed from an earlier periphrastic construction involving a prior converb and a non-past form of the verb *a:gu* 'to become'); it has been replaced in Modern Kannada by the suffix *utt*; this latter suffix also occurs as a non-deictic simultaneous suffix (see 2.4.1), and probably has progressive meaning as its basis. That is, the path of grammaticalization used by Kannada for moving from progressive to present apparently does not involve the denotation of the imperfective aspect as an intermediary stage.

Another interesting aspect of this grammaticalization process is that the aspect-prominent and mood-prominent languages show distinct tendencies of

change when they develop temporal distinctions. In the case of aspect-prominent languages, we generally find a two-way past/non-past distinction or a three-way past-present-future distinction developing from an earlier perfective-imperfective distinction, which correlates with the fact that from an aspectual point of view present and future appear as imperfective and past as perfective. For example, the Semitic languages had originally an aspectual system, which distinguished between perfective and imperfective events, but in some of the modern languages this has changed into a temporal system in which the distinction is between past and present (see Stassen 1997: 493–519).

In the case of mood-prominent languages, on the other hand, the general tendency is to develop primarily a future/non-future distinction. In Manipuri, for example, the tense distinction is between future and non-future (see 2.2.1), which has apparently developed from an earlier realis-irrealis modal distinction. We can account for this tendency by the fact that from a modal point of view both past as well as present events appear as realis events and only the future events appear as irrealis events. Another interesting point is that in the case of mood-prominent languages, the general tendency is to develop elaborate systems of past and future tenses (involving distinction of temporal distance). This is also a "modal" tendency in the sense that these distinctions of temporal distance correspond to the various evidentiality (or judgement) distinctions in these tenses. One can be more certain about a past event that took place today than one that took place yesterday or last year.

7.10 Conclusion

I hope to have listed, in the foregoing sections, sufficient number of characteristics that can be correlated with the classification of languages into tense-prominent, aspect-prominent and mood-prominent types, to make such a typological classification worth pursuing. The characteristics appear to indicate that the most prominent verbal category influences not only the structure of verbal forms, but also other areas of grammar such as nominalizations, case marking, adjectival and adverbial systems, etc. It appears to influence even the world-view of the speakers, and hence we might regard this typology as providing evidence in support of the Sapir-Whorf hypothesis.

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