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Aspect: A general system and its manifestation in Mandarin Chinese

Huang, Lillian Meei-jin, Ph.D.

Rice University, 1987
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ASPECT:
A GENERAL SYSTEM AND ITS MANIFESTATION
IN MANDARIN CHINESE

by

Lillian Meei-jin Huang

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

APPROVED, THESIS COMMITTEE:

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April, 1987
Abstract

ASPECT has recently attracted much interest and attention, but it has been treated as a temporally construed verbal category. In the present study, an alternative and more accurate characterization of ASPECT is suggested. We postulate that a DIFFUSE--FOCUSSED opposition is the fundamental aspectual principle, which can have such various manifestations as HOLISTIC--RUPTURED (Chamorro), UNREALIZED--REALIZED (Mokilese), UNMODIFIED/PLAIN--INTENSIVE (Fore), UNMODIFIED/PLAIN--DIMINUTIVE (Songhai), ESSENCE--ACCIDENT (Spanish), REMOTE--IMMEDIATE (Alabama), and IMPERFECTIVE--PERFECTIVE (Russian), depending on the language in question. Further, we adopt the common semantics of 'well-formedness' and point out that the DIFFUSE--FOCUSSED principle can better explain why and how ASPECT tends to blend with other grammatical categories such as Tense, FOCUS/Voice, ROLE and Mood.

Moreover, we examine four Aspect markers LE, quo, zai and zhe in Mandarin Chinese, indicating how they constitute an integrated semantic system formed from two manifestations of DIFFUSE--FOCUSSED: REMOTE--IMMEDIATE and NONCONGRUENT BOUNDED--CONGRUENT BOUNDED. The resultant combinations are <CONGRUENT BOUNDED & IMMEDIATE> for LE, <CONGRUENT BOUNDED & REMOTE> for quo, <NONCONGRUENT BOUNDED & IMMEDIATE> for zai, and <NONCONGRUENT BOUNDED & REMOTE> for zhe. The Mandarin
example provides reinforcement for the proposition that the fundamental aspectual principle postulated here is more powerful, and that this principle can more accurately and consistently characterize ASPECT systems in languages.

To conclude, we point out that grammatical manifestations of the DIFFUSE--FOCUSSED opposition in fact reflect how language users make sense of the real world around them. Language then must be seen more generally as a manifestation of human intelligence. Consequently, no rigid and mechanical way can accurately predict actual language usage.
To

a teacher and friend

Philip W. Davis
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Chapter One

Introduction

ASPECT has recently attracted much interest and attention. Nevertheless, the studies that have been done on ASPECT, in general or in particular languages, reveal the notion to be too narrowly construed. The present study attempts to provide an alternative, and hopefully more accurate, characterization of ASPECT. We will first survey recent studies showing how ASPECT has normally been interpreted, e.g. Jakobson 1957/1971, Friedrich 1974, Comrie 1976, Chung and Timberlake 1985 and Dahl 1985. We will then identify and discuss the problems with these conceptions of ASPECT. In Chapter Two, we will introduce data from various languages, ranging from Chamorro (Austronesian) to Alabama (Muskogean) in order to illustrate the nature of ASPECT with respect to its DOMAIN and SUBSTANCE. Furthermore, we will examine the categories that are repeatedly associated with ASPECT, such as Tense, ROLE, FOCUS/Voice and Mood and explain how and why certain categories such as these are likely to blend with ASPECT. The rest of the dissertation will be devoted to the study of four major aspectual markers in Mandarin Chinese, \textit{le}, \textit{guo}, \textit{zai} and \textit{zhe}. We will examine previous work on these markers and present an alternative interpretation that integrates them into a single semantic system. In the last chapter, we will briefly summarize and
identify directions for further research.

1.1 Recent studies on ASPECT

Jakobson, in his paper 'Shifters, verbal categories, and the Russian verb' (1957/1971.134), regards Aspect as one of the verbal categories and considers it as characterizing 'the narrated event itself without involving its participants and without reference to the speech event.' He distinguishes Aspect from Tense by identifying Tense as a 'shifter', defined externally with reference to the speech performance, and by identifying Aspect as a 'non-shifter' which concerns the internal temporal features of the situation itself. Apparently, Jakobson (1957/1971) regards Aspect as a formation of EVENT time, independent of its relation to the time of the act of speech.

As we have seen, Jakobson distinguishes Aspect from Tense. Note that what he means by Tense does not equate to what other people like Comrie (1976) call Tense. For Comrie and many other linguists, Tense can be subcategorized as Absolute Tense and Relative Tense. The former relates the time of situation to the time of speech event, while the latter relates the time of event to the time of some other situation. Accordingly, Relative Tense, unlike Absolute Tense but like Aspect, is not directly related to the time of the speech event either. Absolute Tense equates to Jakobson's Tense, whereas Relative Tense is a variety of Jakobson's Taxis, which 'characterizes the narrated event in
relation to another narrated event [emphasis mine, LMH] and without reference to the speech event' (Jakobson 1957/1971, 135). Although both Aspect and Taxis (Relative Tense) are independent of the time of the speech event, Jakobson treats them as two separate categories since they denote different senses; that is, Aspect is concerned with the internal temporal features of the EVENT itself, and Taxis (Relative Tense) is identified with the external temporal features of the EVENT without reference to the speech event.

This view of ASPECT is maintained by linguists such as Friedrich (1974), Comrie (1976) and Dahl (1985). According to Friedrich (1974,335), all verbal systems involve three universals, namely, time, voice and mood; and 'time may involve tense, that is, the relative anteriority or posteriority of an action with reference to the speech situation. Temporal values inherent in the activity or state itself ... are coded by aspect categories. Aspect and tense thus both refer to temporal values [emphasis mine, LMH]' and 'differ from each other in that the latter is not a "shifter," requiring speech situational factors for its definition'.

In a similar way, Comrie (1976,3-5)--in his introduction to Aspect--states that 'aspects are different ways of viewing the internal temporal constituency of a situation,' and 'although both aspect and tense are concerned with time, they are concerned with time in very different ways ... tense is a deictic category, i.e. locates situations in time
[and is a shifter, LMH], ... Aspect is not concerned with relating the time of the situation to any other time-point [and is a nonshifter, LMH]'. Accordingly, while Tense marks 'situation-external time', Aspect signals 'situation-internal time'. Dahl (1985) holds a similar view as well. He (1985.24-25) states that Aspect 'has to do with the structure of the things going on or taking place in the situation described by the sentence'; in other words, aspect 'has something to do with time'. He continues to add, 'tenses are typically deictic categories [or a shifter, LMH], in that they relate time points to the moment of speech. Aspects, on the other hand, are non-deictic categories [or nonshifters, LMH]' (Dahl 1985.25). Evidently, like the above-mentioned linguists' view that Tense can be subcategorized as Absolute and Relative Tenses, and that the latter is difficult to keep apart from Aspect, Dahl's definition of ASPECT is clearly a 'temporal' one.

This perception of ASPECT continues and is frequently reiterated in studies of specific aspectual systems, for instance, Chung and Timberlake's study on Chamorro, Mokilese, etc. (1985.228-39), and Machobane's work on Sesotho (1985). According to Chung and Timberlake (1985.214), 'Aspect characterizes the different relationships of a predicate to the event frame'; the event frame is 'an interval of time on which the predicate occurs' (1985.203). In other words, Chung and Timberlake consider that 'Aspect
characterizes the internal temporal structure of the event' (1985.203), which is, like many other linguists' conceptions, a 'timed' view of ASPECT.

As pointed out earlier, Jakobson (1957/1971), as well as many other linguists, has treated Aspect as an exclusively verbal category. Equivalently, in some frameworks (e.g. Foley and Van Valin 1984), ASPECT is treated as a verbal 'operator', that is, ASPECT is limited by definition to being a verbal category. Summing up, we notice that the previous approaches to ASPECT have been to treat ASPECT as a temporally constituted verbal category, which, as we shall see below, is too narrow a conception of ASPECT and will require broadening. In the following, we shall examine and discuss the problems with such conceptions of ASPECT.

1.2 Problems with the previous conceptions

We shall call any approach to ASPECT 'traditional' when it characteristically interprets ASPECT as a verbal category somehow temporally formed. Such a traditional formulation of ASPECT is dominant in recent studies, as we have seen above. The question we would like to ask now is: Is such a conception of ASPECT adequate and justifiable? In other words, is it capable of capturing the nature of actual aspectual systems? Before attempting to answer that question, we need to establish a preliminary frame for the discussion. Any understanding of ASPECT must consider two major components. The first is the DOMAIN of ASPECT. Put
simply, we must ask how much of a happening may be within the purview of an aspectual formation, e.g. in grammatical terms, a Verb, a Verb Phrase, a Clause, a Sentence, etc. There is, in principle, no constraint that requires ASPECT be restricted to one or another of these. Intuitively, we can imagine whole complexes of activity formed in an aspectual way. It is an empirical matter whether there exist limitations to this formation. The second component concerns the 'stuff' from which ASPECT may be shaped, and again it must be empirically determined whether TIME is the sole SUBSTANCE for the construction of aspectual systems. In the context of the above-mentioned, now consider the following examples which will suggest that the traditional conception of ASPECT as described above is inadequate and that it will fail to characterize satisfactorily the aspectual systems of various languages.

The substantive aspectual types have been categorized so that the distinction between the Perfective Aspect and the Imperfective are primary (Comrie 1976.25). The following diagram, taken from Comrie 1976.25 with some modifications, illustrates such an opposition as well as their sub-divisions:
Figure 1

Broadly construed, the Perfective 'involves lack of reference to the internal temporal constituency of a situation, rather than explicitly implying the lack of such temporal constituency' (Comrie 1976.21), and the Imperfective makes 'explicit reference to the internal temporal structure of a situation, viewing a situation from within' (Comrie 1976.24). Before proceeding, we need to point out how such terms as EVENT, PARTICIPANT, PROPOSITION, etc. are going to be used in this dissertation. People use language to express what they know and to communicate with each other; yet they cannot say things all at once. Such a constraint requires the language people use to be organized. Things happen; activities are experienced; circumstances exist; identifications are made; etc. Whatever knowledge gets picked constitutes an arrangement, and this selection constitutes what is called a NARRATED EVENT. Any NARRATED EVENT may be organized in more than one way and each organization of the content of a NARRATED EVENT will constitute a
PROPOSITION. Following Davis (Ms.a.6), the activity-circumstance-identification portion of a PROPOSITION is called an EVENT; and the things involved in the EVENT and that thereby make it manifest are named the PARTICIPANT(S) in the EVENT. All PARTICIPANTS are not equally involved in their EVENT and are cast in different ROLES in the PROPOSITION, such as AGENT (the instigator or prime mover of an EVENT), EXECUTOR (the one that performs/executes an EVENT), EXPERIENCER/PATIENT (the one that experiences things or that ACTIONS are done to) (For further explanation and illustrations, see Davis Ms.a).

Now, if we represent the ACTIVE portion of an EVENT as the wave-like deflection from the EVENT-less STATIVITY of a straight line, then Figure 2 provides a visual metaphor for ASPECT (part of the following discussion in this section is taken from Huang and Davis 1986):

![Figure 2](image)

**Figure 2**

Any ASPECT that characterizes some portion of the transition between A and B will count as Imperfective; and any that organizes the remainder will be Perfective. As all discrete oppositions, this one between Perfective and Imperfective is difficult to maintain, for all EVENTS do not have/require clear and immutable onsets and completions. To illustrate
this, the aspectual element -elu- in Eastern Armenian (Isfahan) marks the intent to perform some EVENT as well as the surreptitious beginning of an EVENT (Davis's field notes):

(1) vaz-elum
    run-    -Pres.1Sg
'I'll run'

(2) mahana-lu-e
    die     -Pres.3Sg
'S/He's going to die'

Both (1) and (2) are glossed with future time, but in (2) it is implied that the process of the subject's death has already begun (e.g. from fatal disease). The general claim that reflects the mortality of humankind is expressed by sentence (3):

(3) kE mahana-Ø
    Fut die    -3Sg
'S/He's going to die'

In sentence (3), the EVENT is not begun; and in (2), the EVENT has begun with some effect—that allows its presence to be recognized—being already produced. In other words, sentence (2) may be said of an unhealthy person while (3) of a healthy one. Also, Eastern Armenian contrasts a Past inflection with a Nonpast and sentence (1) contrasts in this way with sentence (4):

(4) vaz-elum
    run-    -Past.1Sg
'I was supposed to run [but didn't]'

Sentence (4) shows a beginning as sentence (2) does, but the Past Tense demonstrates that the 'beginning' signalled by -elu- extends to the 'intention to perform' some EVENT.
Such content must be present in sentence (1) as well, but is less apparent from the English gloss. The aspectual category signalled by -elu- appears to extend the inception of an EVENT to one's commitment to perform it. From these contrasts we see that the boundary at which an EVENT may be claimed to have begun (or not) is not obvious and cannot be taken as given. We may take it as the province of ASPECT to--among other things--define that transition. The distinction between 'internal time' and 'external time' is then not a datum. The conclusion that EVENTS are not clearly bounded suggests that ASPECT, characterized in terms of that (supposed) boundary, is also questionable.

In the following, we are going to examine two languages in which ASPECT appears applicable to a DOMAIN different from an EVENT/Verb. Let us first consider some data from Finnish, in which nominal markings signal whether the Object in question is totally or partially affected. Observe


(5) a. Osta-n maa -n
   buy -1Sg land-Acc
   'I will buy the land'

   b. Osta-n maa -ta
   buy -1Sg land-Part
   'I will buy some land'

(6) a. Hän luk -i -Ø kirja-t
   he read-Past-3Sg book -Acc
   'He read the books'

   b. Hän luk -i -Ø kirjo-ja
   he read-Past-3Sg book -Pl-Part
   (i) 'He read some books'
In both (5a) and (6a), the Objects marked by -n (for Singular) and -t (for Plural) are considered to be entirely affected, while in (5b) and (6b), the Objects have the suffixes -ta (for Singular) and -a (for Plural) designating their partial affectedness from the ACTIONS ostan 'my buying' and luki 'his having read' respectively. Such a distinction between total and partial affectedness signalled by the nominal case marking in Finnish (as noted in Comrie 1976, Hopper and Thompson 1980 and many other studies of the constructions named), may serve 'to encode the ASPECT of the clause ... the accusative--the case of the totally affected O(object)--gives the clause a perfective or telic value, while the partitive gives it an imperfective or atelic one' (Hopper and Thompson 1980.262). Consider the examples below (Aaltio 1964/1972.113 & 153, and Hopper and Thompson 1980.262):

(6) b. Hän luk -i -Ø kirjo-j -a
he read-Past-3Sg book -Pl-Part
(ii) 'He was reading the books'

(7) a. Hän luk -i -Ø kirja-n
he read-Past-3Sg book -Acc
'He read the book'

b. Hän luk -i -Ø kirja-a
he read-Past-3Sg book -Part
'He was reading the book'

(8) a. Liikemies kirjoitt-i -Ø kirjee-n
businessman write -Past-3Sg letter-Acc
valiokunnalle
committee -to
'The businessman wrote a letter to the committee'
b. Liikemies kirjoitt-ι -Ø kirjett-ι
businessman write -Past-3Sg letter -Part
valiokunta-ilie
committee -to
'The businessman was writing a letter to the committee'

(9) Odota-n neiti Salo-a
wait -1Sg Miss Salo-Part
'I'm waiting for Miss Salo'

With the Partitive marker -a, (6b) can give a second reading
'He was reading the books', which indicates an Imperfective
value. This value is also found in (7b) and (8b), both of
which have Objects with the Partitive marker -a. Moreover,
in sentence (9), since the person 'Salo' expressed by the
Proper Noun with the Partitive marking cannot be partially
waited for, the Imperfective value becomes even more promi-
nent. On the other hand, the Accusative marker -n in (7a)
and (8a) signals a Perfective EVENT. More examples are
given below (Lehtinen 1963:61 & 67):

(10)a. Hän juo -Ø viini-n
he drink-3Sg wine -Acc
'He drinks/will drink (up) the wine'

b. Hän juo -Ø viini-a
he drink-3Sg wine -Part
'He's drinking (the) wine'
'He drinks wine'

(11)a. He maksa-vat lasku-n
they pay -3Pl bill -Acc
'They will pay the bill'

b. He maksa-vat lasku-a
they pay -3Pl bill -Part
'They are paying the bill'

(12)a. Liisa tekee-Ø voileivä-n
Liisa make -3Sg sandwich-Acc
'Liisa makes a/the sandwich'
'Liisa will make a/the sandwich'
b. Liisa tekee-∅ voileivä-ä
Liisa make -3Sg sandwich-Part
'Liisa is making a sandwich'

The difference between the total and partial effect of the
ACTION on the Object in (10)-(12) as well as in (7)-(8) is
apparently equivalent to the contrast between PERFECTIVITY
and IMPERFECTIVITY of EVENTS with respect to their Objects.
Covariation between the PERFECTIVE ASPECT and the TOTALITY
of the Accusative and between the IMPERFECTIVE ASPECT and
the PARTITIVE of the Partitive inflection clearly demon-
strates that the DOMAIN of ASPECT may be larger than an
EVENT/Verb, e.g. a Verb Phrase (Verb + Noun) in Finnish.

Another example to illustrate that the DOMAIN of ASPECT
can extend beyond EVENT/Verb comes from Mandarin Chinese.
Let us briefly examine the ASPECT marker LE in the language.
There are two occurrences of LE that are usually distin-
guished in the tradition of Chinese grammar: a verbal one
that appears between the Verb and its Object, and a senten-
tial one that occurs finally in an utterance. Our argument
below will be that these constitute a morphological identi-
ty, but here we focus on one occurrence of LE. In the
sentences of (13) it is the LE which follows yá 'tooth' that
is our concern. The semantic content of LE will be discus-
sed in more detail in Chapter Four. Here we mainly want to
illustrate that the presence or absence of LE reflects how
the speaker perceives PROPOSITIONS. It appears that this
marker may have as its DOMAIN a complex that is composed of
more than one PROPOSITION, each of which contains an EVENT/Verb. Consider the following examples:

(13)a. Wǒ shuā -le yá jiù shàng -chuáng le
   I brush-LE tooth then ascend-bed LE
   'After I brushed (my) teeth, I went to bed'

   b. Wǒ shuā -le yá le. Wǒ shàng -chuáng le
      I brush-LE tooth LE I ascend-bed LE
      'I've brushed (my) teeth. I went to bed'

The absence of a sentential LE following yá 'tooth' in (13a) signals the blending of the content of wǒ shuā yá 'I brush (my) teeth' with wǒ shàng-chuáng 'I go to bed'. The effect of this is seen in the semantic connection 'after' (and in Mandarin, in the required presence of jiù 'then') and in the normal absence of a repeated Pronoun wǒ 'I'. In sentence (13b), the occurrence of a sentential LE after yá 'tooth' forces a separation between the two EVENTS named. They are now more nearly two utterances in succession pointalistically describing two activities with less inherent connection. (13b) might occur as a child's response to its mother's inquiry into the completion of the nightly pre-bedtime routine; uttering (13b) simply enumerates the components of that routine. Sentence (13b) may then also be a response to a request to list one's activities; and in that context a disjointed citation as in (13b) will suffice, while (13a) implies less such disjuncture. The looseness that comes from that boundary marked by LE is also detected in the more easily repeated Pronoun wǒ 'I'. Its presence in (13b) does not add to the strangeness of that sentence, but adding wǒ
'I' to (13a) is clearly marked, something a foreigner might say. The contrast between sentences (13a) and (13b) will illustrate the noncongruency of boundaries, because the verbal **LE** in (13a) refers to a verbal **DOMAIN** distinct from the propositional one of the sentential **LE**. The following figure shows such a contrast between the verbal **DOMAIN** and the more extensive **DOMAIN** signalled by the verbal and sentential **LE** respectively:

![Diagram](image)

\[
\text{(13a)} \quad \text{(13b)}
\]

\[
\text{EVENT:} \quad \text{EVENT:}
\]

\[
\text{PROPOSITION:} \quad \text{PROPOSITION:}
\]

\[
\text{wǒ shuā- jiù shàng- le yá chuánɡ le} \quad \text{wǒ shuā- wǒ shànɡ- le yá le chuánɡ le}
\]

**Figure 3**

Such a merging of propositional content into a larger unit is also commonly noted for languages that have 'clause chaining', such as Hua (e.g. Haiman 1980), and a variety of African languages (cf. Lord 1982). This phenomenon has even been described in English (Loetscher 1973.358 as cited in Huang & Davis 1986.3):

... a typical question which would motivate ...

... ['Jack gave Sam a blow in the head. Sam went down and started squeaking.'] as a response could simply be, "What happened then?" However, one effect of the existence of the higher level of common topic is that the
sequence of single events can itself be understood as one single event [emphasis ours, LMH/FWD]. It is possible in an introductory sentence to give a more exact qualification of the events as for static descriptions. E.g. we could introduce ... [the above responses about Jack and Sam] by saying: "Something funny happened yesterday." As a consequence of the fact that either the description as a whole can be taken as a single event or the constituent events can be considered separately, such an introductory sentence can be understood as qualifying either the description as a whole or each single constituent event.

Consequently, we consider that ASPECT should not be merely a verbal category. Its DOMAIN should not be constrained to an EVENT/Verb as in the previous literature; it should be broadened to permit more inclusive aspectual DOMAINS.

Having given some demonstration of the need to reinterpret the possible DOMAIN of ASPECT, we turn now to an example which shows that the traditional view of the SUBSTANCE of ASPECT needs similar broadening. Choctaw, a Western Muskogean language, employs reduplication of part of the 12 Verbs to designate the notion of INTENSITY (Nicklas 1972. 77):

(14)a. chito 'big'
   b. chieto
      big(Rd)
      'very big'

(15)a. pisa 'see'
   b. pigasa -li-tok
      see(Rd)-I -Past
      'I gazed at it'

(16)a. kobaffi 'break'
b. kobbaffi -tok
   break(Rd)-Past
   'He finally got it to break'

With STATIVE Verbs/Adjectives like chito 'big' in (14a), the reduplicated form designates an increase of the quality expressed by the Adjectives named, as chieoto 'very big' in (14b). With Verbs expressing EVENTS which can be easily prolonged, e.g. pisa 'to see' in (15a), the reduplication indicates an extreme prolongation of the EVENTS, as in (15b). As for Verbs designating EVENTS which are not easily prolonged, i.e. INSTANTANEOUS EVENTS, the grammatical device then manifests the COMPLETION of the EVENTS in question after a prolonged attempt. Although a Perfective/Compleative aspectual analysis seems adequate for ACTIVE EVENTS/Verbs as those in sentences (15)-(16), it is difficult to extend that to sentences like (14) without modification. To account for all the cases mentioned here, the semantics expressed by the reduplicated form is better interpreted as denoting EVENT INTENSITY, the realization/perception of which varies, depending on the verbal semantics—whether it is an increase in the quality, a prolongation of an activity or a prolonged attempt. These data cannot be consistently and adequately interpreted by the traditional (and narrow) view of ASPECT. The traditional conception will certainly fail to characterize the Choctaw aspectual system as ASPECT. In terms of Figure 2, such an example requires that we concern ourselves not only with the transition itself, but that we must
consider the nature of the line—the quality of the EVENT, whether attenuated or enhanced.

In addition to the above-mentioned problems, anyone who is concerned with understanding ASPECT will encounter another difficulty; that is, ASPECT may intersect with other grammatical categories such as Tense, Voice and Mood, and hence cannot always be clearly isolated. This raises the more general problem of the detection of ASPECT; a problem not solved by declaring ASPECT to be a universal category. Wallace (1979) provides us an illustration in his discussion of the semantics of verbal prefixes in Jakarta Malay. The prefix ɲ- in that language has various functions relevant to the present discussion. First, observe the sentences below (Wallace 1979.153):

(17)a. ali ɲE-bEli tu buku
    Ali -buy that book
    'Ali bought that book'

b. tu buku di-bEli amA ali
    that book -buy by Ali
    'That book was bought by Ali'
    'Ali bought that book'

c. ali ɲ-bEli tu buku
    Ali -buy that book
    'Ali bought that book'

Among the first set of sentences, Wallace (1979.168) notes that the presence of ɲ- in (17a) designates the 'focus on actor (almost always)'; the presence of di- in (17b) indicates the focus on goal; and the affixless form in (17c) shows the possible focus on any participant. This explains why ordinarily the presence of ɲ- and di- has been treated
as manifesting the contrast between 'active' and 'passive'
constructions and why these p: 'fixes are treated as marking
the Voice system of the language.

Yet, as Wallace points out, the following examples with
and without the prefix ꜀- seem to require a different expla-
nation (Wallace 1979:160):

(18)a. u1Er ꜀-O6Or guA
    snake 'bite me
    'A snake tried to bite me'

b. u1Er ꜀-sO6Or guA
    snake 'bite me
    'A snake bit me'

(19)a. guA mau ꜀-ajak diA ni mæEm
    I going to 'invite her this night
    'I was going to invite her (out for a date)
tonight'

b. guA mau ꜀-ajak bapa?
    I going to 'invite father
    'I'm going to invite Father (to play chess)'

While (18a) with the prefix ꜀- designates an attempted per-
formance, (18b) without ꜀- indicates a successful perform-
ance. As for sentences (19a-b), the semantic contrast
between them is that between doubtful/unrealized intention
and certain/realizable execution. Such a contrast between
attempts and performances, and between unrealized intentions
and realizable executions, appears to have nothing to do
with the Voice system as described in (17a-b); it is some-
thing else—Mood (or Status, in Whorf's [1938/1956a] sense).

Furthermore, consider the following sentences (provided
by Wallace, personal communication):
(20)a. ali nE-bEli buku
   Ali -buy book
   'Ali is a book buyer'

b. ali Ø-bEli buku
   Ali -buy book
   'Ali bought a book'

(21)a. ali lagi nE-bEli buku
   Ali at:moment -buy book
   'Ali is engaged in buying a book at the moment'
   [he is a book buyer]

b. ali lagi Ø-bEli buku
   Ali at:moment -buy book
   'Ali is engaged in buying a book at the moment'

Although the presence of n- has generally been treated as an
ACTOR focus marker, especially when compared with cases
having Verbs marked by the prefix di- (e.g. [17a] vs.
[17b]), Wallace points out that the Verb bEli 'buy' with the
prefix n- in (20a) describes a person's habit or profession,
and hence the English gloss 'a book buyer'. In other words,
(20a) does not depict a specific EVENT but a general habit/
profession. On the other hand, bEli 'buy' in (20b) without
the prefix n- refers to a particular occasion, as indicated
by the English equivalent. Similarly, even with the co-
presence of the particle lagi 'at the moment' which denotes
an ongoing EVENT, the contrast between (21a) and (21b) is
that while (21a) marks a person's routine or occupation of
buying books and his being engaged in buying a book at that
moment, (21b) simply shows a person's being engaged in
buying a book without claiming that the book buying is his
habit or profession.

That the presence and absence of n- manifest the
contrast between the semantics of GENERALITY and SPECIFICITY can be further illustrated by the following examples

(Wallace 1979.159-60, 162-63 & 167):

(22)a. diA m-Agan gOlOk
    they -hold knife
  'They carry knives (on their persons)'

    b. guA lagi ḡ-pAgan r0K0?
       I at:moment -hold cigarette
       'At the moment I've got a cigarette'

(23)a. diA ḡE-jaIt
    he -sew
  'He sews (for a living)'

    b. diA bE10n ḡ-jaIt cElana? guA
       he not:yet -sew pants my
  'He hasn't sewn my pants yet'

(24)a. aban guA, gEmUK si gEmUK, tapi
      older:brother my fat Concessive fat but

           Enga? ḡE-liat
      not -see
     'My older brother may be fat and healthy, but
      he can't see'

    b. guE Enga? ḡ-liat lu sEmalEm
       I not -see you last:night
  'I didn't see you last night'

Similar to what has been noted in (20)-(21), with the prefix ḡ-. Verbs in (22a) and (23a) describe people's characteristic/general behavior or profession: without it, (22b) and (23b) refer to specific ACTIONS. Likewise, in (24a), the Verb ḡEliat with the prefix ḡ- denotes generic capability, i.e. 'be able to see', whereas in (24b), the prefixless Verb liat indicates an actual occurrence '(actually) see, catch sight of'. In sum, the contrast between the presence and absence of ḡ- here reflects the contrast between a generic
activity/habit and a specific activity. In this respect, the presence vs. absence of \_ - reflects not a contrast in Voice or Mood/Status, but a contrast in Aspect. In other words, the presence of \_ - designates what Comrie (1976) may treat as a Habitual (Imperfective) marker, and its absence a Perfective one.

After examining the examples above, we now may ask: What is the real nature of the prefix \_ - in Jakarta Malay? Does its presence and absence manifest the contrast of Voice, Mood/Status, Aspect, or the combination of all of them? As we have seen, the Jakarta Malay data reveal the simultaneous presence of several semantic strands, similar to Turkish, in which categories such as Tense, Aspect and Mood cannot be studied in isolation from one another (cf. Slobin and Aksu [1982.185-200]). One of the semantic strands in Jakarta Malay is the UNSUCCESSFUL—SUCCESSFUL continuum of Figure 4:

UNSUCCESSFUL \_ - SUCCESSFUL

Figure 4

Here we include the opposition between ATTEMPT and SUCCESS, and that between unrealized intentions and realizable executions, i.e. ATTEMPT/Unrealized intentions vs. SUCCESS/Realizable executions. Sentences (18) and (19) illustrate the relative prominence of this semantics. We will
elaborate upon Figure 4 in the discussion of the Mokilese aspectual system in Chapter Two.

A second semantic strand is the IMPERFECTIVE—PERFECTIVE scale of Figure 5,

\[
\begin{array}{c}
\text{IMPERFECTIVE} \\
\text{PERFECTIVE}
\end{array}
\]

\[
\begin{array}{c}
\text{x---------------------x} \\
\text{ŋ} \\
\text{ŋ}
\end{array}
\]

Figure 5

where the terms are not to be taken in their literal etymological senses; perhaps 'GENERAL' and 'SPECIFIC' are better terms to use and will cause less confusion here. The generalized activities marked by -ŋ in (20a)-(24a) manifest values from the more GENERAL/Imperfective (Habitual) end, and the unique instantiations of (20b)-(24b) select values from the more SPECIFIC/Perfective extreme (cf. Maslov 1985).

Considering these two continua of Figures 4 and 5, we may postulate that the presence and absence of the prefix -ŋ in Jakarta Malay can be generalized as designating the principal contrast between DIFFUSE and FOCUSED, each of which appears at one of the ends of the continuum of Figure 6:

\[
\begin{array}{c}
\text{DIFFUSE} \\
\text{FOCUSED}
\end{array}
\]

\[
\begin{array}{c}
\text{x---------------------x} \\
\text{ŋ} \\
\text{ŋ}
\end{array}
\]

Figure 6

This generalized perspective upon an EVENT allows it to vary from sketchy, ill-formed, out-of-focus to well-defined, well-formed, delineated and focussed. The EVENT may vary
along this scale while maintaining a constant (or nonspecified) internal time and because of this, the semantics of \( \overline{y} \)-cannot be referred to the traditional aspectual categories of Perfective—Imperfective. The contrast between UNSUCCESSFUL and SUCCESSFUL, and that between GENERAL and SPECIFIC can be regarded as alternative experiences of the DIFFUSE and FOCUSED continuum of Figure 6. In the equivalent of a semantic Necker Cube, respectively, UNSUCCESSFUL can be 'reperceived' as GENERAL, and vice versa. Figure 7 below shows their close association:

\[
\begin{array}{c}
\text{DIFFUSE:} \\
\text{UNSUCCESSFUL} \\
\text{GENERAL} \\
\text{SPECIFIC}
\end{array}
\quad
\begin{array}{c}
\text{FOCUSED:} \\
\text{SUCCESSFUL} \\
\text{SPECIFIC}
\end{array}
\]

Figure 7

The intimate connection between/among the varying purposes of ASPECT in Jakarta Malay suggests that a traditional view is too narrow. This tentative conclusion is reinforced by the discovery of aspectual systems that employ one of these continua as their primary, or exclusive, semantic principles. It is to an inspection of such systems that we now turn.
Footnotes

1 Notationally, we shall use upper case (e.g. ASPECT) to indicate a semantic category, and an initial upper case (e.g. Tense) to indicate a grammatical term.

2 As Friedrich (1974.3) points out, ASPECT in traditional grammar was mainly a part of morphology and the study of ASPECT did not attract many linguists' attention in past decades. Lyons (1977.704-05) also states that 'the notion of aspect ... is less familiar ... than are the notions of tense and mood', which is 'largely a matter of historical accident'. It is recently that linguists have shown greater interest in the study of ASPECT.

3 This is, as stated by Comrie (1976.3) himself, based on the definition given by Holt (1943.6): 'les manières diverses de concevoir l'écoulement du procès même,' which Comrie translates as 'different ways of conceiving the flow of the process itself'.

4 Some more recent works following such a temporal view of ASPECT can be found in Maslov 1985, Bybee 1985, etc. Maslov (1985.4) states that 'aspectual meanings reflect some "assessment" or qualitative description by the speaker of the action denoted by the verb, from the point of view of the development and distribution of this action in time [emphasis mine, LMH], but without reference to the moment of speech.' Bybee (1985.151) even makes an explicit statement to exclude what we are going to include in aspecual systems because 'they do not have anything to do with the temporal contours [emphasis mine, LMH] of the situation'.

5 Friedrich (1974), on the other hand, has suggested that durative vs. non-durative may be the basic aspecual opposition, or at the most, completive vs. non-completive may be added to it. Also, Jessen 1975 (as cited in Traugott 1978. 387-88) argues for different kinds of aspecual relations that interrelate, rather than subcategorize as suggested by Comrie (1976).

6 Armenian is a subgroup of the Indo-European family. As stated in Lehmann 1962/1973.24, 'Modern Armenian exists in two branches: the Eastern, spoken in the Union of Soviet Socialist Republics and Iran, and the Western, spoken
formerly in Turkey. Some speakers of Armenian have settled elsewhere, in Lebanon, parts of Europe, and the United States.'

7 Concerning the non-conventional symbols used in the transcription of the data in this dissertation, refer to Appendix 1.

8 Finnish and its related languages can be diagrammed as follows:

```
Finno-
   Ugric           Hungarian
                   Ob-Ugric
  Ugric
  Finnic          Finnish
                   Estonian
                   Lapp
```

9 Instead of using the term 'Accusative marker', Aaltio 1964/1972 uses 'Genitive marker' for Singular Noun and 'basic form' (or 'Nominative marker' as used in Lehtinen 1963) for Plural Noun in the Object position. Since Personal Pronouns in the language do have separate forms for Genitive and Accusative cases as well as Partitive case, as illustrated below (Aaltio 1964/1972.30 & 163):

1) Eeva nak-i -Ø minu-t
   Eve see-Past-3Sg I -Acc
   'Eve saw me'

2) Eeva e -i -Ø nah-nyt minu-a
   Eve Neg-Past-3Sg see-PP I -Part
   'Eve didn't see me'

3) (minu-n ) talo -ni
   I -Gen house-Gen.1Sg
   'my house'

we follow Hopper and Thompson 1980 and use the term Accusative instead of Genitive/Nominative in the Object position hereafter.

10 In Finnish, Nouns generally have the same form for both Singular and Plural. But when the Partitive case marking is present, the Nouns will take the Plural marker -j- in the intervocalic position or -j- elsewhere. For details, see Aaltio 1964/1972.198-201.
11 Finnish does have a construction to describe an ongoing process, as noted in Aalto 1964/1972.167-68: 'Continuous action is in Finnish often expressed just by ordinary tenses: luen I read; I am reading, etc... When, however, the speaker wants to emphasize the fact that the action is going on just at the moment referred to, it is possible to use the form ... (the) stem of 3rd person present tense + -massa (-mässä): teke/-teke/mässä, syö/-syö/mässä etc.' For instance (Aalto 1964/1972.166-67):

(1) Neiti Suomela on hiihtä-mässä, ja Lauri on pelaa-
Miss Suomela is ski - and Lauri is play -
massa tennis-tä
tennis-Part
'Miss Suomela is skiing, and Lauri is playing tennis'

(2) Silloin he ovat syö -mässä päivällis-tä
then they are have- dinner -Part
'Then they will be having dinner'

12 Concerning which portion of the Verb stem is reduplicated, see Nicklas 1972.91-95 for details.

13 Jakarta Malay is a dialect of Malay, which and its related languages can be diagrammed as follows:

```
+----------------+ +----------------+
| Indonesian     | | Indonesian     |
|                | +----------------+ |
|                |               | | Bahasa         |
|                |               | +----------------+
| Austro-        |               | | Indonesia      |
| Polynesian     |               | | - Achinese     |
| Melanesian     |               | | - Batak        |
| Micronesian    |               | | - Javanese     |
|                | +----------------+
|                | | Malay          |
|                | +----------------+
|                | | Philippine     |
|                | +----------------+
|                | | Formosan       |
```

14 The treatment of the prefix-opposition (such as p- and di- in Jakarta Malay) as a Voice contrast has also been suggested in the analyses of other Indonesian languages, for example, Tchekhoff 1980 and Tampubolon 1983. Tchekhoff (1980.71-72), following Darjowidjojo 1976 and Cartier 1974, considers the following Indonesian sentences an Active-Passive pair:
(1) a. Orang itu me-mukul anjing
  persons this —beat dog
  'The person beats the dog'

b. Anjing di-pukul (oleh) orang itu
dog —beat by person this
  'The dog is beaten by this person'

She also notices that there is another structure with pre-fixless Verbs as given below (Tchekhoff 1980.72):

(1) c. Anjing saya ø-pukul
dog I —beat
  'I beat the dog'

For her, such a construction is often used/preferred when
the AGENT/Actor is expressed by the first or second person
Pronoun. Tampubolon (1983.41), however, while also regard-
ing the contrast between using meN- and di- as an Active-
Passive opposition, states that 'the deletion of the prefix
meN- does not seem to change the meanings ... the affixation
can be considered as semantically redundant.' In other
words, according to Tampubolon, the following sentences mean
the same (Tampubolon 1983.40):

(2) a. Mereka me-makan ayam goreng
  they —eat chicken fry
  'They ate fried chicken'

b. Mereka ø-makan ayam goreng
  they —eat chicken fry
  'They ate fried chicken'

Unlike Tchekhoff (1980), Tampubolon (1983) and many
others, Thomas (1980) has a different view concerning the
functions of meN- and di-. According to him, while meN- is
an AGENT-focus marker, di- is a NONAGENT-focus one instead
of an Object-focus one. In addition, he states that the
verbal suffixes in AGENT-focus sentences designate a dual or
secondary relationship and that in NONAGENT-focus sentences
they indicate the exact nature of this NONAGENT Subject.
Examples follow (Thomas 1980.65):

(3) a. Orang me-lempar-i gedung dengan batu
  people —throw — building with stone
  'People pelted the building with stones'

b. Orang me-lempar-kan batu ke gedung
  people —throw — stone at building
  'People throw stones at the building'
c. Gedung di-lempar-i oleh orang dengan batu
   building -throw- by people with stone
   'The building was pelted by people with stones'

d. Batu di-lempar-kan oleh orang ke gedung
   stone -throw- by people at building
   'Stones were thrown by people at the building'

Apparently, as Wallace (1979.169) points out, the contrast between the presence and absence of the prefix ʮ- in Jakarta Malay is different from that between the presence and absence of the prefix meN- in other related languages.

15
Maslov (1985.17) has pointed out a similar (and perhaps clearer) situation in Slavonic languages: 'The contrast between a phenomenon in its concrete specific occurrence and a phenomenon presented as a generalisation "on the plane of general principle", or at least without being made a reality, emerges clearly in Slavonic languages in the use of the perfective and imperfective aspects in the "concrete-factual" and "generalized factual" meanings respectively, for example ... "I felt that I could not possess this body, that it was not mine, and that she could use it [imperfective—in general] as she wished, and was intending to use it [perfective—in this particular instance] not as I wished.". For more discussion, see Maslov 1985.

16
If we include the particle lagi 'at the moment' which marks an ongoing EVENT with and without the prefix ʮ-, we may have a scale like the following:

<table>
<thead>
<tr>
<th>IMPERFECTIVE</th>
<th>PERFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habitual</td>
<td>Habitual-</td>
</tr>
<tr>
<td>Progresive</td>
<td>Progresive</td>
</tr>
<tr>
<td></td>
<td>Perfective</td>
</tr>
</tbody>
</table>

ʮ-    lagi ʮ-    lagi ø-    ø-
Chapter Two

Nature of ASPECT

As pointed out in Chapter One, the traditional view of ASPECT, i.e. an interpretation of ASPECT as a verbal category somehow temporally formed, cannot adequately capture the nature of actual aspectual systems. Only when we allow the DOMAIN of ASPECT to be broadened and allow ASPECT to be not solely temporally construed can we understand ASPECT. In this chapter, we are first going to examine data from different languages in order to illustrate the nature of ASPECT in regard to its DOMAIN and SUBSTANCE. Let us begin by examining some data from one of the Western Austronesian languages--Chamorro.

2.1 Chamorro--a case of INTERRUPTION

Chamorro, a Western Austronesian language, has two verbal forms that designate different ASPECTS: the basic Verb form and the Verb form with the stressed (Consonant-) Vowel reduplicated. The former has been most recently treated as indicating the Nonprogressive (or 'Neutral') Aspect and the latter the Progressive (cf. Topping 1973/1980b and Chung and Timberlake [hereafter C&T] 1985). In presenting the Chamorro data, we will show that although the opposition of Progressive vs. Nonprogressive/Neutral accounts for much of the aspectual usage, there exist usages which are only awkwardly (or not at all) interpretable as
Progressive vs. Nonprogressive. These latter are evidence of another aspectual principle at work. First, observe the following sentences (C&T 1985.229-30 and Topping 1973/1980b. 152) with the reduplicated portions underlined:

(1) a. Mientras man-ayúyuda gue', man-litiráratu yo' while -help(Rd) she -photograph(Rd) I 'While she helped, I took pictures'

b. Mientras um-atgumémente ham, man-ma -pópo'lo i while -argue(Rd) we -Pass-put(Rd) the nénkanno' gi lamasa food Loc table 'While we were arguing, the food was being put on the table'

c. Mientras ki um-o'g'mak yo', papaine hao while -bath(Rd) I comb(Rd) you 'While I am taking a bath, be combing your hair'

(2) a. Anai ma-mómokkat yo', ma-loffan un amigu -hu when -walk(Rd) I -pass a friend-my 'While I was walking, one of my friends passed by'

b. Anai h =um=anao yo' guatu, istaba si Sandy na when go= =go I there Imperfect Art Sandy Comp man-ayúyuda -help(Rd) 'When I went over there, Sandy was helping'

In (1a), the two EVENTS '(her) helping' and '(my) taking pictures' take place simultaneously; each overlaps the other, as C&T (1985.230) characterize them. In other words, instances of 'helping' and 'picture taking' are interlaced; each EVENT 'interrupts' the other and this is manifested by the reduplicated Verb forms, manayúyuda 'helping' and manlitiráratu 'taking photographs'. A similar situation, i.e. mutual INTERRUPTION of the EVENTS, can be seen in (1b) and (1c) and hence the reduplication of the verbal forms.
On the other hand, in sentence (2a), the two EVENTS '(my) walking' and '(my friend's) passing by' are not mutually interrupting. It is the latter, i.e. '(my friend's) passing by', that is itself an unbroken EVENT constituting an intrusion, a breakage in the course of the other EVENT '(my) walking', which EVENT then serves as background for the 'passing by'. Consequently, the EVENT '(my) walking' is expressed by the reduplicated Verb mamómokkat whereas the EVENT '(my friend's) passing by' is designated by the basic Verb form maloffan. Similarly, in (2b), we find that the EVENT '(Sandy's) helping' is 'broken' by '(my) going over there' and thus, the former appears in the reduplicated verbal form. The latter EVENT '(my) going over there' occurs holistically, without another EVENT intercalated within the course of its execution, and it therefore occurs in the basic form.

The following examples of basic verbal forms support the contention that some value of INTERRUPTION is appropriately attributed to an EVENT as the content manifested by the grammar of reduplicated and non-reduplicated forms (Topping 1973/1980b.147 & 264, and C&T 1985.229):

(3) a. h =um=anao gue' antes di bai hu fatto
go= =go he before Fut I come
'He left before I came'

b. Yanggen h =um=anao yo' bai hu espira hao
if go= =go I Fut I look:for you
'If I go, I will look for you'
c. Ch =um= ocho yo' anai h =um= anao yo' para i
eat= =eat I when go= =go I the

gima'-hu
house-my
'I ate when I went to my house'

d. Anai in -na'chotchu un biahi i masoksok na
when 1Pl-feed one time the skinny
ga'lagu, ha -tutuhon matto gi gima'-mami kada
dog 3Sg-begin come Loc house-our each
birada
round:trip
'After we fed the skinny dog once, he began to come
to our house every time'

As indicated by the English glosses, the two EVENTS in each
sentence of (3a-d), are sequential; that is, for example,
'(his) going' in (3a) must precede '(my) coming'. As
neither of them is broken by the other (or by some third
EVENT), both are expressed by non-reiterated Verbs. Such
a correlation between a broken or unbroken EVENT and its
being manifested by a reiterated or basic verbal form can
be schematized as follows:

@: reduplicated
Verbs

#: basic Verbs

(i) A ------ @

B e.g. (1a-c)

(ii) A ------ @

B # e.g. (2a-b)

(iii) A ------- 

# B  e.g. (3a-d)

Figure 1
The Chamorro aspectual system has been treated in terms of Continuative/Noncontinuative (Topping 1973/1980b) or Progressive/Neutral (C&T 1985), which may be able to explain the different verbal forms in sentences like (1)-(3), but such an aspectual opposition can less adequately account for those in (4a-c), as we will see below. The alternative approach we have presented above (i.e. in terms of the notion of INTERRUPTION) can take care of those complex sentences (1)-(3) as well as explain the occurrence of different verbal forms in the following sentences (C&T 1985.229 & 233, and Topping 1973/1980b.257):

(4) a. Malagu yo' nigap  
    run  I  yesterday  
    'I ran yesterday'

b. Na-lang i  ga'lagu  
    hungry  the dog  
    'The dog is hungry'

c. Ma  la-la-la-latde i  famagu'on  
    they scold(Rd) the children  
    'They are scolding the children'

The Verb malagu 'run' in (4a) appears in its basic form and designates an 'unbroken' EVENT which attains that state because it is COMPLETED; no INTERRUPTION is possible here. The Verb na-lang 'hungry' in (4b) is a STATIVE Verb which indicates an 'un-interrupted' STATE and which is therefore manifested by the basic verbal form. The Verb in (4c), on the other hand, occurs in its reduplicated form la-la-latde 'scolding', and from the English gloss we note that the EVENT indicates an ongoing activity, not a static situation.
In this case, we may interpret it as having episodes as do the EVENTS in (1)–(2), except that such INTERRUPTIONS occur internally (i.e. inside the EVENT itself) and are not imposed upon it from without (i.e. externally from another EVENT). Although (4c) seems acceptably described as aspectually Progressive or Continuative, and (4a) as Non-continuative (or Neutral), such descriptions do not extend naturally to other examples; it is, for instance, difficult to see the Aspect of (4b) as 'Nonprogressive' or 'Non-continuative' unless we accept the non-reduplicated form as expressing what is regarded as the semantic complement of the Progressive (or Continuative) Aspect and therefore as any Aspect as long as it is not Progressive (or Continuative). It is difficult to find a semantic communis for the non-reduplicated forms of (4a) and (4b), if Perfective vs. Imperfective is taken as the basis of Chamorro Aspect. And, indeed, the label 'Nonprogressive' for such forms is an admission of this failure. Taking INTERRUPTION as the SUBSTANCE of Chamorro Aspect allows us to unify the semantics of (4a) and (4b) as HOLISTIC, by virtue of the absence of INTERRUPTION and to oppose them to (4c) as RUPTURED, by virtue of the presence of INTERRUPTION.

Now let us examine some more sentences with STATIVE Verbs. Although STATIVE Verbs normally do not appear in the reduplicated forms designating the INTERRUPTION of the STATES, there are cases in which STATIVE Verbs allow the
reduplication. Note the following examples (C&T 1985.234-35):

(5) a. Ya esta mu-mamaipi
    and already -hot(Rd)
    'And it was getting hot'

    b. Ya esta mamaipi
    and already hot(Rd)
    'And it was getting hotter'

    c. Esta pa'gu ti ndata
    until now not hungry(Rd)
    'He still was not hungry'

Sentence (5a) denotes a change from the STATE of 'being not hot' to that of 'being hot', which is expressed by the prefix mu- and the reduplicated Verb mamaipi. The INTERRUPTION of reduplication can thus be perceived as creating discontinuous 'episodes' of STATES and can be schematized as follows:

```
STATE B
   _
STATE A
   _
''hot''
''not hot''
```

Figure 2

Sentence (5b), on the other hand, denotes a continuing increase of heat in a series of stages created through the semantic RUPTURE signalled by reduplicated Verb mamaipi as illustrated in Figure 3:
Breakage can also be perceived in (5c). As the English gloss shows, the speaker expects that 'he' by then should have been hungry but he was 'still' not. In other words, the STATE in question, i.e. the STATE of '(his) being not hungry', is contrary to the speaker's expectation, i.e. '(his) being hungry'. The STATE's being contrary to the speaker's expectation can then be interpreted as a RUPTURE and hence manifested by the reduplicated form ḋañalang.

Such an interaction between the aspectual semantics of an EVENT and the speaker's perception (Mood-like property) is also present in other languages like Alabama, which will be discussed in Section 2.6. Below is another example illustrating the semantics of INTERRUPTION in Chamorro (Gibson 1980.80):

(6) a. Á'pak'a'  este na magagu
    white  this  cloth
    'This cloth is white'

    b. Á'apak'a'  este na magagu
    white(Rd) this  cloth
    'This cloth is still white'

Comparing (6a) with (6b), we may notice that the cloth's
remaining white contradicts one's expectation in (6b) can be perceived as a breakage and thus be indicated by the re-duplicated form á'apaka'.

That a situation contrary to the speaker's anticipation is expressed by a re-duplicated form can also be found in instances with ACTION Verbs, as designated in the following (Costenoble 1940.300):

(7) a. Ti maigo'
    not sleep
    'He hasn't slept'

   b. Ti mamaigo'
    not sleep(Rd)
    'He still hasn't slept'
    'He still isn't sleeping'

(8) a. Ti hu gagaw
    not I ask
    'I didn't ask him for it'

   b. Ti hu gagagaw
    not I ask(Rd)
    'I still haven't asked him for it'

Sentences (5a-c) and (6b)-(7b)-(8b) increase the difficulty of attributing the semantics of Chamorro ASPECT to Perfective—Imperfective and reinforce the usefulness of the notion of INTERRUPTION in understanding the aspectual system of the language.

Furthermore, although it is possible to regard the non-re-duplicated form as the semantic complement of the Progressive (or Continuative) Aspect and therefore as any Aspect as long as it is not Progressive (or Continuative), it appears unlikely when we examine the following examples (C&T 1985. 232 & 230):
(9) a. Sigi yo' di um-éssalao ya hu -agang si
keep I Comp -shout and 1Sg-call Art
tata -hu
father-my
'I kept on shouting and calling for my father'

b. *Sigi yo' di um-é'essalao ya hu -á'agang si
keep I Comp -shout(Rd) and 1Sg-call(Rd) Art
tata -hu
father-my

(10)a. Todu dia man-mama'tinas para i giput
all day -cook for the party
'All day they cooked for the party'

b. *Todu dia man-mama'títinas para i put
all day -cook(Rd) for the party

(11)a. Pues um-atgumentu-nñaihon ham
so -argue -awhile we
'So we argued for a while'

b. *Pues um-atgumentu-nñañaihon ham
so -argue -awhile(Rd) we

The fact that non-repeated verbal forms cooccur with
Verbs like sigi...di 'keep on' or adverbial expressions such
as todu dia 'all day' and nñaihon 'awhile' while the repeated
forms cannot is difficult to explain if we accept a
negative characterization of ASPECT of the non-repeated
Verbs. The positive complement of Progressive (or Continuative)
cannot be Perfective, for that is ill-adapted to
explain (4b) with a STATIVE Verb ñalang 'hungry'; and no
other traditionally constituted Aspect (e.g. Completive,
Inceptive, Habitual, etc. Cf. Comrie 1976.) will provide a
cohesive semantic interpretation of the non-repeated
forms. This difficulty arises from the restrictive aspectual
typology of the traditional grammarians that views
EVENTS as Perfective/Imperfective, Progressive/Non-
progressive, Completed/Incompleted, etc. If, however, we
accept that other modes of ordering the progression of an
occurrence are possible and accept the notion of INTERRU-
PTION as proposed, we can better understand the place of
sentences (9)-(11) in the Chamorro aspectual system. If an
EVENT continues without stopping (e.g. manifested by
sigi...di 'keep on') or exhaustively occupies a period of
time (e.g. indicated by todu dia 'all day' or nñaihon 'a-
while'), no INTERRUPTION can be perceived within the EVENT,
and it must be an HOLISTIC one. Consequently, the Adverbs
sigi 'keep (on)', todu dia 'all day', and nñaihon 'for a
while' are incompatible with the reduplicated forms which
designate RUPTURED EVENTS. Witness (9b), (10b), and (11b).
Such incompatibility cannot be explained by the approach
adapted by C&T. Extending the semantics of INTERRUPTION
from sentences (1)-(4) to sentences (9)-(11) provides a
natural account of the semantic cooccurrence constraints of
the (non-)reduplicated forms. The Progressive vs. Neutral
(or Continuative vs. Noncontinuative) seems an equivalent
description for the first four sentences, and to be one cast
in more familiar terms, but the shortcomings of that inter-
pretation are sharply apparent in the examination of sen-
tences (9)-(11), which are then left isolated and without
explanation.

Moreover, the approach we suggest above (and not the
ordinary/traditional one) can explain why sentences with kada 'each' as in kada dia 'every day', kada pupuengi 'every evening', etc., and todu i tiempo 'all the time' have the Verbs in the reduplicated verbal forms, as given in (12)-(13) (Topping 1969/1980a.92 & 101 and Topping 1973/1980b.154 & 213):

(12)a. Man-bebende guihan kada pupuengi
         -sell(Rd) fish each evening
'He sells fish every evening'

    b. Hu tokcha' este na guihan, ya ma-nonokcha' yo'
       I spear this fish and -spear(Rd) I

       guihan kada dia
       fish each day
'He speared this fish and I spear fish every day'

(13)a. Todu i tiempo machocho'cho' gue' duru
       all:the:time work(Rd) he hard
'All the time he works hard'

    b. Todu i tiempo mameigo  gue'
       all:the:time sleep(Rd) he
'He is sleeping all the time'

Kada pupuengi 'every evening' in (12a) and kada dia 'every day' in (12b) designate that the EVENTS are treated as a series of cyclic, or distinct broken stages and hence the reduplicated Verb forms. Sentence (12b) can be further considered as a case in which one EVENT (here 'my spearing this fish') interrupts the other which happens to be a series of performances (i.e. 'my spearing fish every day'); consequently, the former is expressed by the basic Verb form and the latter the reduplicated form. Likewise, todu i tiempo 'all the time' in (13a-b) focusses upon multiple iterative performances and thus the Verbs in (13a-b) appear
in their reduplicated forms.

Although the concept of INTERRUPTION plays a very important role in determining which verbal form to use, the semantics of Verbs needs to be taken into account. Consider the following sentences (Gibson 1980.90 & 102):

(14)a. In tingu' ha' na todu i tiempo man-atasao ham we know Emp Lk all:the:time -late we 'We know that we are always late'

b. Todu i tiempo um-a' -ekspekta ham para bai in all:the:time -Recip-expect we Fut we atrasao late 'We always expect each other to be late'

As noted earlier, STATIVE Verbs (e.g. atrasao 'late' in [14a]) indicate STATES which have no breakage and normally appear in the basic forms. Therefore, even when they co-occur with the adverbial expression todu i tiempo 'all the time', their basic verbal forms are still used, as shown in (14a). As expected, less ACTION-like Verbs (e.g. ekspekta 'expect' in [14b]) work in a similar way, i.e. appearing in the basic form and designating unbroken activities, as given in (14b).

Understanding that the notion of INTERRUPTION (or BREAKAGE) is fundamental to the account of the Chamorro aspectual system, we are now able to better explain, for instance, why the EVENT/Verb 'cook' can be either in its basic/Neutral form fuma'tinas as in (15a) or in its reduplicated/Progressive form fuma'títinas as in (15b) (C&T 1985).
(15a). Yanggen malangu gue', guahu f =um=a'ñinas i when sick she I cook= =cook the
sena
dinner
'When she is sick, I cook dinner'

b. Yanggen malangu gue', guahu f =um=a'ñínatas i when sick she I cook= =cook(Rd) the
sena
dinner
'When she is sick, I cook dinner'

Our explanation is that when the basic form is used, i.e. (15a), the sequential sense is present and thus an interpretation of cause-effect is appropriate. In other words, either of the two EVENTS (manifested by the Verbs in the basic forms) forms an unbroken EVENT and does not interrupt the other. When the two EVENTS designate two simultaneous (or overlapping) happenings, the reduplicated form of the two Verbs should then be used. However, because the EVENT/Verb malangu 'sick' in both (15a) and (15b) is STATIVE and has no internal change, only its basic form can be used. As a consequence, there is only one Verb in (15b) appearing in the reduplicated form, i.e. fuma'ñínatas 'cook'. To sum up, though sentences (15a–b) show that the EVENT/Verb 'cook' can either be in its basic or reduplicated form and the English glosses are the same, the interpretations of these two sentences should in fact be different.

To recapitulate, the traditional view of ASPECT cannot adequately characterize the Chamorro aspectual system, as
discussed above. In order to capture the nature of the ASPECT system of the language we have to expand the DOMAIN of ASPECT and recognize the notion of INTERRUPTION which is then signalled grammatically by the reduplicated verbal forms. Below we will examine another language--Mokilese--to show another possible semantic principle of ASPECT.

2.2 Mokilese--a case of REALIZATION

Mokilese is a Micronesian language, which presents us with another example that forces us to expand the traditional view of ASPECT. According to Harrison (1976), there are three verbal forms in the language designating different Aspects. First, let us examine some sentences with Verbs plus suffixes (Harrison 1976.217 & 226):

(16)a. Ngoah rapahkih-da ih aio
     I  look:for- him yesterday
     'I found him yesterday'

(17)a. Ngoah kang-la raiss-o
     I  eat - rice -that
     'I ate up that rice'

(18)a. Ih sipis-di joall-o
     he tie - rope -that
     'He tied that rope'

The verbal suffixes in the above sentences show that the EVENTS manifested by the Verbs are Completed/realized, in the sense that, as the English equivalents indicate, the goal of each EVENT (i.e 'the finding of him' instead of just 'looking for him' in [16a], 'the consumption of all the rice instead of part of it' in [17a] and 'the success of tying that rope' in [18a]) is reached. It is this successful goal
attainment that the verbal suffix signals and that is focussed on in each sentence above. On the other hand, if the attainment of the EVENT goal is not the main concern, the EVENTS will be expressed by the unmodified Verb stems. Examples follow (Harrison 1976.216-17 & 226):

\[(16)\text{b. Ngoah rapahki }-\emptyset\text{ ih aio} \]
\[\text{I look:for- him yesterday} \]
\[\text{I looked for him yesterday}
\]

\[(17)\text{b. Ngoah kang-}\emptyset\text{ raiss-o} \]
\[\text{I eat - rice -that} \]
\[\text{I ate that rice}
\]

\[(18)\text{b. Ih sipis-}\emptyset\text{ joall-o} \]
\[\text{he tie - rope -that} \]
\[\text{He is trying to tie that rope}
\]

The unsuffixed Verbs *rapahki*, *kang* and *sipis* name the ACTIONS of 'looking for (him)', 'eating (that rice)', and 'trying to tie (that rope)', respectively. As shown in the English glosses, it is not explicitly indicated whether these EVENTS reach their final goals, although the realization of these goals is very likely unsuccessful and thus the use of 'looking for' instead of 'finding', 'eating' instead of 'eating up' and 'trying to tie' instead of 'tying' in the English glosses.

The contrast between the EVENTS manifested by the two types of Verbs mentioned above is not a matter of the COMPLETION/PERFECTIONITY of the EVENTS; for instance, 'eating' did take place and end in both (16a) and (16b). The difference lies in whether the EVENT in question has attained its goal. In one case (e.g. [17a] vs. [17b]), it
is the total affectedness of the Object such as 'all the rice (being eaten)' that determines the use of the verbal suffix; in another case (e.g. [16a] vs. [16b], and [18a] vs. [18b]), it seems that the success of the EVENTS such as 'finding the person' and 'tying the rope' is the deciding factor. But in either case, we can see both factors are actually related; that is, the more the Object is enveloped by the EVENT, the more successful the EVENT is regarded to be, and vice versa. Recall some of the Finnish examples from Chapter One (repeated below):

(19)a. Osta-n maa -n
    buy -1Sg land-Acc
    'I will buy the land'

    b. Osta-n maa -ta
    buy -1Sg land-Part
    'I will buy some land'

(20)a. Hän luk -i -ø kirja-t
    he read-Past-3Sg book -Acc
    'He read the books'

    b. Hän luk -i -ø kirjo-j -a
    he read-Past-3Sg book -Pl-Part
    'He read some books'
    'He was reading the books'

(21)a. Hän luk -i -ø kirja-n
    he read-Past-3Sg book -Acc
    'He read the book'

    b. Hän luk -i -ø kirja-a
    he read-Past-3Sg book -Part
    'He was reading the book'

Both Mokilese and Finnish can mark the attainment or non-attainment of EVENT goals, or in another sense, the total or partial affectedness of Objects. except that for such a purpose, grammatically Mokilese uses verbal suffixes, their
presence or absence, and Finnish uses nominal case markings, Accusative or Partitive.

The difference between using suffixed and un-suffixed Verbs in Mokilese becomes more evident when we take into account the following sentences (Harrison 1976.228-29 & 255):

(22)a. Ngoah pihnih-ki -Ø sehpill-o minis rieijek
    I paint -Dur- table -that minute twenty
    'I painted the table for twenty minutes'

    b. Ngoah pihnih-kih-la sehpill-o minis rieijek
    I paint -Dur- table -that minute twenty
    'I painted the table in twenty minutes'

(23)a. Ngoah kauj -ki -Ø ih awahicaw
    I chase-Dur- him hour
    'I chased him for an hour'

    b. Ngoah kauj -kih-di ih awahioaw
    I chase-Dur- him hour
    'I caught up to him in an hour'

    c. Arai kauj -Ø woall-o oaroh jaik -di ih
    they chase- man -that until catch- him
    'They chased that man until they caught him'

As the English glosses in (22a-b) indicate, (22b) with the verbal suffix -la expresses that the table is completely painted; in other words, the table is fully affected, and that the EVENT reaches its unique goal and is considered to be successful, whereas (22a) without -la simply designates how long the EVENT 'painting' lasts and probably the work is still not finished yet, i.e. a relatively less successful EVENT. In other words, the presence of the suffix -la in (22b) signals the REALIZATION of the EVENT goal. A similar situation can be found in sentences (23a-c). Note that the
Verb kauj 'chase' in both (23a) and (23c) does not have the suffix -di-, and that the EVENT goal, i.e. 'catching him/that man' has not been realized yet. But the Verbs kauj 'chase' in (23b) and jaik 'catch' in (23c), on the other hand, have the suffix -di-, and thus designate the REALIZATION/attainment of the EVENT goal 'catching him'.

That verbal suffixes mark the successful attainment of EVENT goals can be further confirmed by the following complex sentences (Harrison 1976.227–28 & 269):

(24)a. Ngoah inoauki-Ø pwa ngoah pirin pwili-Ø
I agree - that I will go -
'I agree to go'

b. Ngoah inoaukih-di pwa ngoah pirin pwili-Ø
I agree - that I will go -
'I agreed to go'

c. Kamai inoaukih-di pwa ih japwung -la
we agree - that he make:a:mistake-
'We agreed that he had made a mistake'

(25)a. Ngoah jei -oæng-Ø Mwandohn
I paddle- - Mwandohn
'I am paddling in the direction of Mwandohn'

b. Ngoah jeidih-la Mwandohn
I paddle- Mwandohn
'I paddled to Mwandohn'

According to Harrison (1976.227), (24a) describes 'the event of making a statement or declaration' whereas (24b) emphasizes 'the content of the declaration'. This implies that the EVENT 'my going' which is grammatically the clausal Object in (24b) is the focus and is very likely to be realized (or to have been realized, e.g. japwung 'make a mistake' with -la in [24c]), while this EVENT in (24a) cannot
have been actualized, as is indicated by the English equivalent. Concerning the presence and absence of the suffix -la in (25a-b), Harrison (1976.227-28) states that with the suffix -la, (25b) emphasizes 'the goal of the motion (the place reached),' i.e. 'Mwandohn,' and that without -la, (25a) emphasizes 'the activity of changing location or the means of locomotion.' Again, the presence of the verbal suffix here confirms what we suggested earlier: the Object is the focus, being directly or indirectly affected, and the EVENT is realized, as indicated in the English gloss.

In sum, the Mokilese data mentioned above reveal the presence of the same aspectual SUBSTANCE found in Jakarta Malay: UNSUCCESSFUL—SUCCESSFUL. While Jakarta Malay forms the SUBSTANCE into a two-way system, using g- and its absence (or a four-way system when lagi is taken into account), Mokilese expands the system into a three-way opposition, using reduplication (which will be discussed below) in addition to unmarked basic forms and suffixed forms. As shown above, sentences (16)—(18) and (22)—(25) illustrate a contrast between unsuccessful and successful EVENTS, or focusless/EVENT-focussed and Object-focussed EVENTS in Mokilese. In other words, the presence of suffixes indicates that the EVENTS in question are focussed and intense upon one point, which can be either the attainment of the EVENT goal or the affectedness of Object. Clearly, the aspectual
contrast in Mokilese is one manifestation of the general
DIFFUSE--FOCUSSED content of ASPECT, and the term UNREALIZED
vs. REALIZED will be used here in order to distinguish this
instantiation of DIFFUSE--FOCUSSED from other types of
DIFFUSE--FOCUSSED contrast. Figure 4 below reflects the
UNREALIZED--REALIZED implementation of DIFFUSE--FOCUSSED in
Mokilese, Finnish and Jakarta Malay along with the grammati-
cal markings in each language:

<table>
<thead>
<tr>
<th>UNREALIZED</th>
<th>REALIZED</th>
</tr>
</thead>
<tbody>
<tr>
<td>x-----------------x</td>
<td></td>
</tr>
</tbody>
</table>

Mokilese: V-∅        V-di
Finnish: VO-Part     VO-Acc
Jakarta: n-V          ∅-V
Malay

Figure 4

Let us now examine the third verbal form in Mokilese--
the reduplicated one. Examples follow (Harrison 1976.216 &
220):

(26)a. Ngoah raprapahki ih me
       I look:for(Rd) him here
       'I am looking for him here'

       b. Ngoah raprapahki ih aio
       I look:for(Rd) him yesterday
       'I was looking for him yesterday'

(27)a. Ngoah wadwadek pukk-o akpas
       I read(Rd) book-that now
       'I am reading that book now'

       b. Ngoah wadwadek pukk-o anjoau-o ih
       I read(Rd) book-that time -that he
       japahl -do
       come:back-
       'I was reading that book when he came back'
c. Ngoah wadwadek pukk-o lakapw
   I read(Rd) book-that tomorrow
 'I will be reading that book tomorrow'

When in isolation, the above sentences with reduplicated Verbs can be reasonably interpreted as designating a Progressive sense, i.e. indicating ongoing EVENTS at the time referred to, either Present in (26a)-(27a), Past in (26b)-(27b) or Future in (27c). However, by contrast with the earlier-mentioned two constructions, i.e. the unmodified one and the one with verbal suffixes, which designate the two extremes FAILURE/ATTEMPT--SUCCESS (or DIFFUSE--FOCUSSED), the structure with reduplicated Verbs (ordinarily treated as the Progressive) emerges as a 'success-in-the-making', a stage in the perfecting the EVENT, a literal Imperfective. Compare (27a) with the following sentences (Harrison 1976. 179):

(28)a. Ngoah ne wadek-la pehn jilu -w
       I already read - time three-Classifier
     'I already read it three times'

       b. Ngoah pe wadek-g pukk-o
           I still read - book-that
            'I am still reading that book'

Evidently the EVENT 'reading (it)' in (28a) is a successful one, as indicated by the English gloss; the grammatically elided Object 'it' has been read through, moreover, not just once but three times. As for (27a) and (28b), although both English glosses have the Verbs in Progressive forms, (27a) emphasizes on the EVENT's being ongoing at the moment, i.e. 'I am reading the book (now)', in the sense of 'I am moving
toward the final goal of finishing reading the book', while (28b) presents the idea that 'I am still reading the book', in the sense of 'I have failed to complete reading the book'—a relatively less successful EVENT when compared with (28a) and (27a). Furthermore, the Object 'that book' in (27a) may be more directly involved/affected than it is in (28b), while it is fully (the most) affected in (28a). In other words, on the scale of DIFFUSE--FOCUSED, (28b) denotes an EVENT on the DIFFUSE end and (28a) an EVENT on the FOCUSED end, while (27a) indicates an EVENT in between these two extremes.

The semantics of UNREALIZED--REALIZED is additionally confirmed by the interaction of the basic form, reduplicated form and suffixed form with cooccurring content to yield the semantic effect of PARTICULARIZATION. In the appropriate context, an UNREALIZED EVENT will also be one that is not PARTICULARIZED (and, hence, GENERAL) or conversely PARTICULARIZED (and, hence, SPECIFIC). With respect to the temporal and/or spatial PARTICULARIZATION, the EVENT expressed by a reduplicated Verb or a suffixed Verb is a PARTICULAR one, in the sense that it is bound to a particular TIME (although it can be either Present, Past or Future, determined by the context, as in [27a–c]) or to a specific location (e.g. here, there, etc.), whereas the EVENT manifested by an unmodified Verb stem is a less PARTICULAR one— it is not tied to any specific moment or place, and can be used in
presenting, for instance, a general truth. Compare the
following examples, (a) of which states a general truth
while (b) a particular instance (Harrison 1976.72 & 299):

(29)a. Mahnsang kin wia -ʒ ahr paj in kohn suhkoa
    bird    Hab make- Poss nest at top tree
    'Birds build their nests in treetops'

b. Arai wiah-da pohs-pas
    they make- boat-one
    'They built a boat'

The presence of kin, a Habitual marker, combined with the
absence of the verbal suffix in (29a) gives the sense of
GENERALITY, that is, 'building a nest in treetops' is a
characteristic/habit of birds. The presence of the verbal
suffix da in (29b), on the other hand, signals that '(their)
building a boat' is a specific occasion; the 'boat building'
may not be their habit or profession. Apparently the dif-
ference between (29a) and (29b) is a case between GENERALITY
and SPECIFICITY. Another example illustrating such a con-
trast is given below (Harrison 1976.271):

(30) Ngoah pihnih-la woaroai pohss-o
    I    paint -    boat -that
    doahrroar en mihn Mwoakilloa kin pihniek-
    in:the:same:manner:as Mokilese Hab paint -
    ʒ pohs
    boat
    'I painted my boat the way the Mokilese paint boats'

While 'my boat painting' is a particular incidence marked by
the suffixed verbal form pihnih-la, 'the Mokilese's painting
boats' is expressed by an unmodified form pihniek along with
the Habitual marker kin.
As noted above, unmodified Verbs designate EVENTS which are temporally and/or spatially unbounded, and thus non-specific EVENTS. Sentences with such Verbs, when having additional information manifested by adverbial expressions, which can be temporal or spatial, can be glossed into English sometimes as Simple Present, Simple Past or Present Progressive. In other words, these utterances with temporal or spatial expressions then designate more specific instances, as illustrated below (Harrison 1976.69, 75, 86, 152, 180 & 216):

(31)a. Ngoah rapahki -ø ih me
      I look:for- him here
      'I am looking for him here'

      b. Ngoah rapahki -ø ih aio
          I look:for- him yesterday
          'I looked for him yesterday'

(32)a. Ngoah kapang-ø
      I see -
      'I see (it)!

      b. Ngoah kapang-ø woal-pwi ø
          I see - man -Pl there
          'I saw some men there'

      c. Ngoah kapang-ø woall-o apwkanno
          I see - man -that a:few:minutes:ago
          'I saw that man a few minutes ago'

      d. Ngoah kapang-ø ih mwohn anjoau-ø ma ih
          I see - him before time -that that he
          inla-ø o
go - there
          'I saw him before he went there'

      e. Ngoah ne kapang-ø kilel -le
          I just:now see - picture-this
          'I'm just now seeing this picture'

Harrison (1976.342, fn.1) remarks that rapahki in (31a) has
to be translated into English as 'am looking' instead of 'look', which, as we can see above, is due to the coocurrence of me 'here'. On the other hand, the presence of aio 'yesterday' in (31b) requires the sentence be interpreted as a past EVENT and thus the English gloss 'looked for'. But in both cases, the EVENT 'looking for' is a particular incident owing to the additional contextual information. A similar situation can be seen in sentences (32a-e); that is, the EVENT Verb kapang 'see', when occurring in a particular context, indicates a specific occasion, as shown in the English glosses.

In summary, Mokilese has different verbal forms which signal differing modes of the constant aspectual system of REALIZATION: (i) as SUCCESS or FAILURE(/ATTEMPT) of the EVENT; (ii) as varying degrees of the affectedness of the Object in an EVENT; and (iii) as varying degrees of PARTICULARIZATION. This is represented as follows:

<table>
<thead>
<tr>
<th>DIFFUSE:</th>
<th>FOCUSED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNREALIZED</td>
<td>REALIZED</td>
</tr>
<tr>
<td>v-----------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Verb</th>
<th>reduplicated Verb</th>
<th>Verb + suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>rapahki</td>
<td>raprapahki 'looking for'</td>
<td>rapahkih-da 'find'</td>
</tr>
<tr>
<td>'look for'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kang</td>
<td>kangkangkang 'eating'</td>
<td>kang-la 'eat up'</td>
</tr>
<tr>
<td>'eat'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 5**

If we include Finnish's three-way opposition and Jakarta
Malay's four-way distinction, the scale will then look like the following:

\[
\begin{array}{ccc}
\text{DIFFUSE:} & \text{FOCUSSED:} \\
\text{UNREALIZED} & \text{REALIZED} \\
\hline
x--------x & x---------x-
\end{array}
\]

Mokilese: \( V-\emptyset \quad \text{VV} \quad \text{V-di} \)

Finnish: \( \text{VO-Part} \quad \text{olla} \quad \text{V-massa(O)} \quad \text{VO-Acc} \)

Jakarta: \( \text{g-V} \quad \text{lagi g-V} \quad \text{lagi } \emptyset \text{-V} \quad \emptyset \text{-V} \)

Malay

Figure 6

So far we have only examined the cases with Transitive Verbs. Below let us consider some sentences with Intransitive Verbs (Harrison 1976.71, 173, 192, 221, 241 & 300):

(33)a. Woall-o ne aluh-la
    man -that already walk-
    'That man has left already'

b. Kamai allalu raun
   we walk(Rd) around
   'We are walking around'

c. Ngoah alu -\emptyset
   I walk-
   'I walk'

d. Woall-o ne pirin ken alu -\emptyset
   man -that already will then walk-
   'The man is just about to take a walk'

e. Jeri siksikk-o joh kak alu -\emptyset
   boy small -that Neg can walk-
   'That small boy can't walk'

(34)a. Oaujoangoan pwideng pwa ngoah joh kak moair-la
   so hot that I Neg can sleep-
   'It was so hot that I could not get to sleep'

b. Joangoan mahnn -o kin moair-\emptyset in kohn ni
   type:of animal-that Hab sleep- at top coconut
   'That type of bird usually sleeps in coconut trees'
The discussion on the different forms of Transitive Verbs can apply here as well. For instance, in (33a) the Verb aluh 'walk' plus the suffix -la designates that the EVENT is REALIZED and the man is no longer walking around; he has left (note that aluh here is interpreted as 'leave' instead of 'walk'). The reduplicated form allalu in (33b) emphasizes the ongoingness of 'walking'; the EVENT is actually in process at the moment of speaking, whereas (33c-e) with the Verb stem alu show that the EVENT is not bound to a PARTICULAR TIME. Such a contrast becomes even clearer when we compare (34a) and (34b). Unlike (34b), which designates a general truth/fact, (34a) has the Verb moair 'sleep' plus the suffix -la, the Negative marker joh and the Modal kak 'can' all together denoting a failed EVENT, which is a PARTICULAR incidence bound to a specific TIME. In (34b) the Verb stem moair 'sleep' cooccurring with kin names a habitual EVENT which may happen at any moment. In this respect, the EVENT moair 'sleep' in (34b) is less PARTICULAR than in (34a).

Next, examine some sentences with STATIVE Verbs

(Harrison 1976.150, 300-01 & 343):

(35)a. Lih -o lijaian -Ø
    woman-that pregnant-
    'That woman is pregnant'

b. Lih -o lijaian -da
    woman-that pregnant-
    'That woman became pregnant'
(36)a. Ih inenin roairoai-Ø
    he very tall -
    'He is very tall'

b. Jerimweinn-o roairoai-la
    boy -that tall(Rd) -
    'That boy got taller and taller'

In general, STATIVE Verbs describe STATES which are not bound to a PARTICULAR TIME. As expected, they are expressed by unmodified Verb stems, such as lijaian 'pregnant' in (35a) and roairoai 'tall' in (36a). Like those ACTION Verbs, STATIVE Verbs may have suffixed forms as well. The presence of the verbal suffixes (e.g. -da in [35b] and -la in [36b]) designates the becoming/realization of the STATES expressed by the STATIVE Verbs. In other words, these suffixes indicate a change from previous STATES into the ones in question, e.g. from 'not pregnant' into 'pregnant' in (35b), and from 'tall' into 'taller and taller' in (36b).

Moreover, STATIVE Verbs may appear in reduplicated forms, as in the examples below (Harrison 1976.221):

(37)a. Ngoah pwudo -Ø
    I sweaty -
    'I feel sweaty'

b. Ngoah pwudpwudo
    I sweaty(Rd)
    'I am sweating'

(38)a. Oai ohlahu moadoak-Ø
    my wound hurt -
    'My wound hurts'

b. Oai ohlahu moadmoadoak
    my wound hurt(Rd)
    'My wound is hurting (is acting up)'

Comparing (37a) with (37b), we notice that while (37a) with
the Verb stem describes the STATE 'being sweaty' which is not bound to a specific TIME, (37b) with a reduplicated form stresses on the ongoingness of 'sweating' at this moment, i.e. it is sufficiently REALIZED to sustain a degree of PARTICULARITY. Sentences (38a) and (38b) illustrate a similar contrast.

Finally, note that the reduplicated verbal form may take verbal suffixes, as presented in (36b) and the sentences below (Harrison 1976.223 & 185):

(39) a. Soalsoalsoal-da mijen loangg-e black(Rd) - this 'The sky got blacker and blacker'

b. Ara pwen pwa -Ø pirin wud -di ke da, a they just think- will rain- or something but pwanah soalsoalsoal-da just black(Rd) - 'They just thought it was going to rain or something, but it just kept getting darker and darker'

The reduplicated forms of STATIVE Verbs in (36b) and (39a-b) indicate an increase of qualities 'tallness' and 'blackness', and hence 'taller and taller' and 'blacker and blacker'. However, the copresence of the verbal suffixes -la and -da designates that the increase of such qualities terminates. In other words, they have reached their goals-- 'being taller' and 'being blacker'.

To recapitulate, the three verbal forms in Mokilese-- the suffixed form, the reduplicated form and the unmodified form--cannot be accurately interpreted as designating the Perfective-Progressive-Imperfective opposition, particularly
to treat the unmodified form as indicating Imperfective Aspect (recall, for instance, the argument presented in the beginning of this section). Such a treatment fails to capture the nature of the ASPECT system of the language. As we have presented above, these three verbal forms in fact designate contrasts which can be understood better in terms of REALIZATION, which has elements of SUCCESS--FAILURE of an EVENT, PARTICULARIZATION of an EVENT, and AFFECTEDNESS of an Object (if there is one). And UNREALIZED--REALIZED can in turn be referred to the aspectual DIFFUSE--FOCUSSED opposition. A suffixed Verb indicates a FOCUSSED EVENT which is normally PARTICULAR and SUCCESSFUL; and if there is an Object, the Object is fully AFFECTED. An unmodified Verb designates a DIFFUSE EVENT which is NONPARTICULAR, very likely to be UNSUCCESSFUL (or perhaps already a failed one), and the Object (if it exists) tends to be Indefinite or Plural and is partially AFFECTED, if not completely UN-AFFECTED. And a reduplicated form denotes an EVENT the characteristics of which are in between the above-mentioned two extremes. The correlation between varying verbal forms and differing aspectual semantics can thus be schematized as follows:
unmodified Verbs  reduplicated Verbs  suffixed Verbs

DIFFUSE:
FAILURE/ATTEMPT
NONPARTICULAR
UNAFFECTED (or partially
AFFECTED Object)

FOCUSSED:
SUCCESS
PARTICULAR
AFFECTED
(Object)

Figure 7

2.3 Alabama, Fore, Ute and Amharic--cases of INTENSITY

As stated earlier, only if we expand the traditional view of ASPECT can we understand better the nature of the ASPECT systems of various languages. The following data from Muskogean show a historical connection between the category of INTENSITY in Alabama and the aspectual category INSTANTANEOUS (Perfective) in Choctaw (and temporal Past TIME in languages like Mikasuki). These comparative data support the identification of INTENSITY as a possible semantic implementation of the category of ASPECT and demonstrate that a range of semantic values broader than PERFECTIVE--IMPERFECTIVE must be taken into account.

Alabama, a Muskogean language of the Eastern branch, has an infix -h- which, as Swanton (1922-23) characterizes it among others, marks a repetitive ACTION. Observe the following examples (Swanton 1922-23 as cited in Lupardus
1982.126):  

(40) a. chofi 'jump'  
    chohfí 'jump more'  

b. ofa 'sew'  
    ohfa 'sew more'  

c. ila 'come'  
    ihla 'come regularly'  

d. ipa 'eat'  
    ihpa 'eat regularly'  

The presence of -h- designates the repetition or regularity of an ACTION, as shown in the English glosses above. Its presence can also indicate that the Subject or Object in question is plural, i.e. -h- may signal increased quantity. Examples follow (Hardy and Montler 1986.9):  

(41) a. kanaatli 'move away (Sg)'  
    kanaahlí 'move away (Pl)'  

b. sipli 'pull one tooth'  
    sihli 'pull more than one tooth'  

In addition to denoting the repetition or regularity of an ACTION, and/or the plurality of Subject or Object in an EVENT, the infix -h- may indicate an increase in the degree of the quality expressed by the Verb, as illustrated below (Hardy and Montler 1986.7, and Davis and Hardy's field notes):  

(42) a. kano 'be good'  
    kahno 'be better'  

b. chaaha 'be tall'  
    chaâhha 'be taller'  

c. laawa 'be lots'  
    lahwa 'be more'
d. kafiili 'try hard'
kafihli 'try harder'

The determination of the meaning of -h- is that, as Hardy and Montler (1986.8-9) note, with 'nondurative verbs ... the semantics of the event determines whether h-infix "more" will be interpreted as plural Agent or a single Agent performing the activity repetitively on a single object or on more than one object, just as the likely interpretation with durative verbs ... is increased intensity or degree.' These contents of the infix -h- can also be expressed by two other types of Verb stem alternation, i.e. what Hardy and Montler (1986) call 'disfixation' and the 'disfixation' with compensatory lengthening. Consider the examples given in (43) with only disfixation and in (44) with additional compensatory lengthening (Hardy and Montler 1986.10 & 12):

(43) disfixation only:

a. balaaka 'lie down (Sg Subj)'
balka 'lie down (Pl Subj)'

b. ibacasaali 'join together (Sg Obj)'
ibacali 'join together (Pl Obj)'

c. batatli 'hit once'
batli 'hit repeatedly'

(44) disfixation with compensatory lengthening of Vowel:

a. topotli 'pass through (Sg Subj)'
topooli 'pass through (Pl Subj)'

b. kayoffi 'scrub (Sg Obj)'
kayooli 'scrub (Pl Obj)'

c. haatanatli 'turn around once'
haatanaali 'turn around repeatedly'

The semantics of INTENSITY is not generally recognized as a
notion appropriate to ASPECT. Traditionally, grammarians accept only the narrower view of EVENTS as Perfective/Imperfective, Progressive/Nonprogressive, etc. However, we suggest that the value of INTENSITY manifested grammatically is directly related to EVENTS, and that the comparison of Muskogean languages (which will be shown below) demonstrate the close tie between INTENSITY and other more usually accepted ASPECTS.

On the basis of the occurrence of the grammatical element -h- in such Muskogean languages as Alabama, Choctaw, Creek and Mikasuki, it is claimed (Booker 1980.109) that these languages show reflexes of the same proto-morpheme *h, which has been reconstructed for Proto-Muskogean as a Perfective Aspect marker. Yet in the present Alabama, the infix -h- serves as an INTENSIVE marker as noted before, while it is retained in other Muskogean languages with assorted but necessarily (historically) related functions. For instance, in Choctaw, it 'survives as an instantaneous (perfective) marker and as an iterative indicator when combined with n. In Mikasuki and Creek, it has become a recent past tense marker. The original perfective meaning is retained in Mikasuki imperative forms' (Booker 1980.109).

The question now is why, while -h- exists as a Perfective Aspect marker in languages like Choctaw, it corresponds to an INTENSIVE marker in Alabama. Below, let us first consider some examples from Choctaw with the infix -h-
(Nicklas 1972.76):

(45)a. pisa  'see'
    pihsa  'glance'

b. ishi  'pick up'
    ihshi  'grab, snatch'

c. ona  'arrive there'
    ohsna  'show up all of a sudden'

As indicated by the English glosses, the infix -h- when used with ACTION Verbs suggests an INSTANTANEOUS EVENT. More examples are taken from Ulrich 1986.165:

(45)d. Famah
    'He was whipped'
        Fahnah
        'He was just whipped'

e. Talowah
    'He sang'
        Talohwah
        'He just sang'

When it is used with STATIVE Verbs/Adjectives as shown below

(Nicklas 1972.76):

(46)a. lakna  'yellow'
    lahakna  'turned more yellow'

b. chito  'big'
    chihto  'turned a little larger'

-h- designates a resultant increase in the quality. It may, in other cases, indicate a quick change of state (Ulrich 1986.167 & 169):

(46)c. Tohbih
    'It's white'
        Tohobih
        'It got white quickly'
d. Niyah
   'He's fat'

Níhyah
   'He just got fat'

e. Litihah
   'It's dirty'

Litíhhah
   'It got dirty real quick'

But in either case (i.e. occurring with ACTION or STATIVE
Verbs), -h- in Choctaw can be treated as a Perfective (IN-
STANTANEOUS) Aspect marker. There are in the available data
from Choctaw no forms to which -h- is opposed, as there are
in Mokilese mentioned in Section 2.2, and which reveal it to
be cast in terms other than Perfective.

As for -h- in Creek, Seminole, Hitchiti and Mikasuki,
it is treated as a Tense marker. Consider the following
data from these languages:

(47)Creek (Booker 1980.120)

a. ꌠ =h=s  -ick-is (Gatschet 1884)
   take =take-2Sg-Declarative
   'you took'

b. ka →y =h=c  -ay -s (Buckner 1860)
   3Sg-say =say-1Sg-Declarative
   'I said to him'

(48)Seminole (Nathan 1977.112)

a. hōmp-tó =h=m  -ey -
   eat -secondary root= =secondary root-1Sg-
   Declarative
   'I ate (recently)'

b. nó =h=c  -ey -á:
   sleep =sleep-1Sg-Interrogative
   'Was I sleeping (recently)?
c. honán-wa -t kitóci-n ø -tak -léys-man -Nom-Subj cat -Obl 3DO-ground-put -

tó =h=m -ø -is secondary root= secondary root-3Sg-Declarative
'The man put down the cat (recently)'

(49) Hitchiti (Booker 1980.125)

a. í =h=si -li -s
   take= =take-1Sg-Declarative
   'I took a short time ago'

b. om=háh=mi-li -s
   do= =do-1Sg-Declarative
   'I did so; I have done so'


a. im =h=p -a -li
   eat= =eat-stem vowel-1Sg
   'I ate (several days ago)'

b. hiic-ó =h=m -i -li
   see -Aux= =Aux-stem vowel-1Sg
   'I looked (at it a week ago)'

c. hiic-ó =h=m -i -Ø
   see -Aux= =Aux-stem vowel-3Sg
   'She looked (at it a week ago)'

d. hiic-ó =h=nka -Ø
   see -Aux- -Prog-3Sg
   'She was looking (yesterday)'

Yet the infix -h- in Imperative forms can give a Perfective interpretation. Examples follow:

(51) a. Hitchiti (Booker 1980.133)

lok -haca =h=li -cka-n
down-stand= =stand-2Sg-
'Now get down and ...'
'Lit. You stand down ...'

b. Mikasuki (Boynton 1984.143)

hi =h=c -ih
see= =see-Imp.Sg.Subj
'Look!'
c. Seminole (Nathan 1977.120)

cokó ø -onápa-n hī =h=c -as
house 3DO-above-Obl see= =see-Imp.Sg.Subj
'Look above the house'

But how has -h- in Alabama acquired (or perhaps 'maintained', which will not be further discussed here) the function of denoting the sense of the EVENT INTENSITY? In their earlier discussion—Alabama Verb Grades: "more"—Hardy and Montler have attempted to find an explanation. They present the following Alabama examples (Hardy and Montler Ms.6-7):

(52)a. kasatka 'be cold'
   b. kasahka 'get cold(er)'

(53)a. hastaali 'be light, bright'
   b. hastahli 'get light(er)'

and suggest that it 'may be that translations such as "get cold" or "get light" reflect a focus of attention on the moment or instant of transition from one state to another ... that would at least be consistent with the Choctaw "instantaneous" meaning. With Verbs of a certain type the change of state came to be less important than the resultant increase in the degree' (Hardy and Montler Ms.7). Such an explanation, as Davis (personal communication) points out, seems to reduce the INTENSITY of Alabama to the normalcy of a Perfective Aspect. Here we suggest another way of looking at the case. Recall the Mokilese 'Perfective' (marked by a verbal suffix) which is the culmination, i.e. the EVENT FOCUSED and intense upon one point. We know that by
contrasting its grammar with the grammar of the 'Imperfective' (indicated by nothing) and its semantics of DIFFUSE attenuation (the semantics of 'attempts'). Now if in Musko-gean languages such a semantics exists, but with no opposing mark (i.e., if -\(h\)- marks this INTENSITY, there are no forms to which it is paradigmatically opposed, unlike a Mokilese verbal suffix opposed to reduplicated forms as well as to -\(\emptyset\), or \(\tilde{\eta}\)- opposed to \(\emptyset\)- in Jakarta Malay), the semantics of -\(h\)- would be 'free' to slide along the scale of DIFFUSE-------------------------FOCUSED

without conflicting with another morpheme (cp. the notion of 'phonetic space'). Thus, -\(h\)- in Alabama has settled upon the mid-range (like a Mokilese 'Progressive') and -\(h\)- in Choctaw has settled upon the extreme FOCUSED end (like a Mokilese 'Perfective') along with -\(h\)- in Imperative forms in Hitchiti, Mikasuki and Seminole. As for -\(h\)- serving as a Past Tense marker in Mikasuki, Creek, Seminole, etc., it appears closer to the DIFFUSE extreme. The relationship of the infix -\(h\)- in these languages can then be illustrated as follows:

<table>
<thead>
<tr>
<th>DIFFUSE</th>
<th>FOCUSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\emptyset)</td>
<td>(\emptyset)</td>
</tr>
</tbody>
</table>

Temporal:
- Mikasuki
- Creek
- Seminole

ASPECT:
- INSTANTANEOUS
- Choctaw
- INTENSITY
- Alabama

Figure 8
Each of these languages has one piece (or two, e.g. Seminole) to the puzzle that is complete only when all these languages contribute. They together create 'one Mokilese'. If what we have suggested is correct, such a historical and genetic relationship further supports our accepting aspeck-tual systems organized by INTENSITY.

As we may now expect, the category of INTENSITY (in one of its forms) is not restricted to Alabama (Muskogean). The concept can be discovered in many other languages, e.g. Fore (Papuan), Ute (Uto-Aztecan) and Amharic (Semitic). Fore, a member of the East New Guinea Highlands Stock, as pointed out by Scott (1978), has the morpheme -ka denoting INTENSITY in an ACTION. For instance (Scott 1978.53):

(54)a. a -ga -y -e  
   it-see-he-Indicative  
   'He sees it'

b. a -ga -ga -y -e  
   it-see-INTENS-he-Indicative  
   'He sees it intensely (i.e. He stares at it)'

The INTENSITY morpheme -ka can be reduplicated to indicate even greater INTENSITY, as shown in the following examples (Scott 1978.54):

(55)a. pu-ga -y -e  
   do-INTENS-he-Indicative  
   'He does (something) intensely'  

b. pu-ga -ga -y -e  
   do-INTENS-INTENS-he-Indicative  
   'He does (something) very intensely'  

Another language, Ute, spoken by a group of Shoshonean tribes, also has a morpheme that designates EVENT INTENSITY,
i.e. -'ni. Its meaning, as pointed out by Givón (1980.363), 'is roughly "doing the act/action in an intensive, concentrated way", and it most commonly applies to verbs of action (rather than to stative verbs)." Consider the sentences below (Givón 1980.35, 104, 150 & 157):

(56)a. ta'wá-ci 'u nanóo-s 'apága-na -y -av nuká-pugá
   man -Subj he self - talk -Rel-Obj-own hear-Rem
   'The man heard what he himself said'
   'The man heard his own speech'

   b. ta'wá-ci mamá -ci-vaa-cu nuká-'ni -pugá
      man -Subj woman- -at -Dat hear-INTENS-Rem
      'The man listened to the woman'

(57)a. wáy-ku mamá -ci puní-kya
      two-Obj woman- see -Imm
      '(He) sees two women'

   b. 'uwáas-'urá na'áy-náağa-tu puní-'ni -¢
      he -be self-in -Dat see -INTENS-Imm
      '... so he looked around him ...

With the presence of -'ni, the Verbs nuka 'hear' in (56b)
and puni 'see' in (57b) are reinterpreted as 'listen' and
'look (at)' respectively, which shows a greater degree of
EVENT INTENSITY. More examples are given below (Givón 1980.
363):

(58)a. pağáy-'way
      walk -Imm
      'walking'

   b. pağáy-'ni
      walk -INTENS
      'walking around'

(59)a. sumáy-¢
      think-Imm
      'thinking of'

   b. sumáy-'ni
      think-INTENS
      'thinking hard/deeply'
(60)a. po'ó -y
    write-Imm
    'writing'

b. po'ó -'ni
    write-INTENS
    'writing hard'

The last example given here to illustrate that the
notion of INTENSITY needs to be included in accounting for
aspectual systems is Amharic, a Southern Semitic language
spoken in Ethiopia. In that language, as Leslau (1968.527-
28) points out, the reduplicated verbal form denotes various
meanings, such as the repetition of the ACTION in question,
the INTENSITY of the EVENT named, etc. Consider the fol-
lowing examples (Huang's field notes):

(61)a. abEbe ye-astEmari-w -n t'Eyak'e mElEs -E
    Abebe -teacher -3M.Poss-Acc question answer-3M
    'Abebe answered the teacher's question'

b. abEbe ye-astEmari-w -n t'Eyak'e-woc
    Abebe -teacher -3M.Poss-Acc question-Pl
    mElalEs -E
    answer(Rd)-3M
    'Abebe answered the teacher's questions (quickly/
     again and again)'

(62)a. Ebud-u sEw-ye mEkina-woc-u -n sEbbEr-E
    mad -Def man- car -P1 -Def-Acc break -3M
    'The mad man broke the cars'

b. Ebud-u sEw-ye mEkina-woc-u -n sEBabbEr -E
    mad -Def man- car -P1 -Def-Acc break(Rd)-3M
    'The mad man broke the cars (intensely/many times)'

(63)a. abEbe bEr -u -n sEbbEr-E
    Abebe door-Def-Acc break -3M
    'Abebe broke the door'

b. abEbe bEr -u -n sEBabbEr -E
    Abebe door-Def-Acc break(Rd)-3M
    'Abebe smashed the door (only hitting once)'
    'Abebe broke the door (many times)'
As indicated in the English glosses, the reduplicated Verb meElalEsE 'answer' in (61b) may designate a repeated ACTION, i.e. 'answer again and again', or an INTENSIVE ACTION, i.e. 'answer quickly'. Likewise, the reduplicated Verb sEbabbErE 'break' in (62b) and (63b) can indicate that the EVENT either happens many times, which can be applied either to many objects, e.g. '(break) many cars' in (62b), or to the same object many times, e.g. '(break) the door (many times)' in (63b). Or the reduplicated form may show a greater degree of the EVENT INTENSITY, hence the English gloss 'smash' in (63b). More examples follow (Leslau 1968:528 & 534 with some modification in transcription):

(64) a. fEnEk'k'ElE
    'uproot'
    fEnak'ak'k'ElE
    'uproot thoroughly; uproot several things; uproot by repeated action; uproot here and there'

b. gElEbbat'E
    'turn over; empty from one container to another'
    gElEbabbEt'E
    'turn inside outside completely; overthrow'

c. t'Et't'a
    'drink'
    t'Et'at't'a
    'drink some more'

Evidently, Amharic is another language that shows the need of including the EVENT INTENSITY into the account of aspec-tual systems.

2.4 Mandarin Chinese, Songhai, Tongan and Yukaghir--cases of DIMINUTION
In addition to the EVENT INTENSITY, DIMINUTION is another possible interpretation of the DIFFUSE—FOCUSSUED SUBSTANCE of ASPECT. Let us first consider some examples from Mandarin Chinese. As pointed out by Li and Thompson (1981.29), volitional Verbs in that language, when reduplicated, signal DIMINUTION of ACTIONS, i.e. 'to do something a little'. Observe:

(65)a. kàn
    kānkān 'see'
    'take a look'

b. zōu
    zōuzōu 'walk'
    'take a walk'

c. xiāo
    xiāoxiāo 'laugh'
    'smile'

d. kǎolū
    kǎolūkǎolū 'consider'
    'consider a little'

e. xiūxi
    xiūxixiūxi 'rest'
    'rest a little'

A similar situation can also be found in Songhai, a Nilo-Saharan language. In Songhai, as noted in Prost (1956. 106), 'le verbe redoublé peut avoir une valeur sémantique diminuée par rapport au verbe simple (the reduplicated Verb, when compared with its simple form, can give a DIMINUTIVE semantic value [my translation, LMH]).' For instance (Prost 1956.106):

(66)a. dūmbu
    dūmbu dūmbu 'cut'
    'cut into small pieces one after another'

b. kar
    kar kar 'strike; hit'
    'pat'

c. sey
    sey sey 'broadcast'
    'scatter; disperse'
22 Tongan, as remarked in Bybee 1985, also has verbal reduplication denoting the DIMINUTIVE sense. For example (Bybee 1985.152):

(67)a. kata 'laugh'
b. katakata 'laugh slightly; smile'

As expected, reduplication of verbal forms is not the only way to mark DIMINUTION of EVENTS. Jochelson (1905) states that Yukaghir, spoken in Northeastern Siberia by several hundred speakers, has a DIMINUTIVE morpheme -ci. For instance (Jochelson 1905.403):

(68)a. pa'nde 'cook'
b. pa'nde-ci 'cook a little'

Not only ACTION Verbs can give the sense of DIMINUTION, STATIVE Verbs can too. Abbi (1985) notes that STATIVE Verbs/Adjectives of color and taste in most of the Indo-Aryan languages, when reduplicated, manifest DIMINUTION in meaning as well. Examples follow (Abbi 1985.166):

(69)Hindi:

a. haril 'green'
b. haril haril saari green green sari 'greenish sari'

(70)Panjabi:

a. miTThi 'sweet'
b. miTThi miTThi caTnii sweet sweet chutney 'sweetish chutney'
(71) Bengali:
   a. laal
      'red'
   b. laal laal boil
      red red book
      'reddish book'

(72) Kharia:
   a. goej'
      'dead'
   b. goej' goej'
      dead dead
      'dead-like'

2.5 English and Spanish—cases of ESSENCE—ACCIDENCE

We have seen that EVENTS may be scaled along the dimen-
sion of DIFFUSE—FOCUSSED and that contrasting formations of
this perspective upon EVENTS will create semantic systems
that have equal claim to designation by the term ASPECT as
do the traditional ones formed from 'internal time'. An
additional way of perceiving an EVENT derives from this
continuum:

NONOCCURRENCE----------------OCCURRENCE

The lefthand extreme is the conglomeration of NONINSTANTI-
ATION and permanent unchanging endurance, or ESSENCE. The
righthand extreme is appropriate to INSTANTIATION or 'occa-
sion' (cf. Lawler 1972) and to ACCIDENCE (cf. Bolinger
1973). Below, let us consider some data from English.

In English, as Davis (Ms.b.) points out, generally
Adjectives/Nouns plus the Copula be manifest STATES/
NONEVENTS and Verbs manifest ACTIONS/EVENTS, as shown in the
following sentences:

(73)a. John is **good**.
(74)a. John is a **fool**.
(75)a. John **laughed** loudly yesterday.

No activity can be perceived in either (73a) with Adjective good or (74a) with Noun a fool, while something happening is more easily recognized in (75a) with a lexical Verb laugh. However, as Davis (Ms.b.253-54) adds, 'Adjectives and Nouns can function in a non-generic, particular way as ACTIONS and that Verbs may appear, conversely, in generic, nonparticular ways as NONEVENTS.' In other words, 'the semantic properties of STATE and ACTION are not constant associations of the parts of speech Adjective/Noun and Verb, respectively' (Davis Ms.b.255). Consider the sentences below (Davis Ms.b.254):

(73)b. John's being **good**.
(74)b. John's being a **fool**.

As opposed to (73a) which has be good indicating timeless endurance, sentence (73b) containing 's being good designates a particular EVENT, a specific occasion. A similar explanation can also be applied to (74b) to account for its being an ACTION, not a STATE as designated by (74a). On the other hand, utterances with forms like laugh do not always describe ACTIONS, either. For instance,

(75)b. John laughs.

Here the simple Present inflection -s indicates that such an
utterance is used to describe 'a nonspecific, not-tied-to-a-
time-and-place circumstance or state of affairs, conclusion
or property' (Davis Ms.b.254). It is not an ACTION, and is
no more EVENT-like than be good or be a fool is.

From the above examples, we note that utterances with
any part of speech can possibly designate STATES or ACTIONS,
though the possibility is not equally the same for each.
Certain Verbs/Adjectives may prototypically designate EVENTS
while others designate NONEVENTS, and they hence constitute
a continuum like the one illustrated below:

\[
\begin{array}{ccc|c}
\text{EVENT/} & \text{NONEVENT/} \\
\text{ACTION} & \text{STATE} \\
\hline
dance \ldots & \text{remain \ldots believe \ldots know} \\
\text{laugh} & \text{keep} & \text{rude} & \text{doubt} \\
\text{strike} & \text{stand} & \text{noisy} & \text{tall} \\
\end{array}
\]

Figure 9

As expected, more EVENT-like Verbs are more compatible with
the be\ldots ing construction which is used to designate ongoing
and more perceivable activities. However, for some EVENT-
like Verbs such as flow and run, taking -ing or not may
present, in addition to the contrast between a STATE and an
ongoing ACTION, the contrast between ESSENCE and ACCIDENCE.
Consider the following examples (Dowty 1975.583):

(76)a. The river \text{flows} through the center of town.

\hspace{1cm} b. The river \text{is flowing} through the center of town.

(77)a. The highway \text{runs} past my house.

\hspace{1cm} b. The highway \text{is running} past my house.
As Dowty (1975.583) points out, when 'motion verbs such as flow, run, and enter are used as locatives, they are likewise excluded from the progressive when they describe a permanent state,' and hence (76a) with the simple Present flows is used for a natural description of a geographical fact—a permanent characteristic, whereas (76b) with the Progressive is acceptable only when, as Dowty (1975.583) adds, 'it describes a flood in progress,' i.e. a particular occurrence. A similar explanation can be applied in accounting for the differences between (77a) and (77b); that is, while (77a) describes a permanent STATE, (77b) with the -ing form can only refer to a highway planned or under construction.

That Verbs with and without the -ing element illustrate respectively the characteristics of temporariness (ACCIDENCE) and permanence (ESSENCE) is confirmed by the following sentences (Dowty 1975.581-82):

(78)a. New Orleans lies at the mouth of the
[*is lying
Mississippi River.

b. The socks are lying under the sofa.

(79)a. John's house sits at the crest of a hill.
[*is sitting

b. Your glass is sitting dangerously near the edge.

As noted by Dowty (1975.583), the acceptability of the above sentences is conditioned by whether the grammatical Subjects named designate moveable objects or not. When the objects are moveable as in (78b) and (79b), i.e., their location is
a temporary property of the objects, the -ing form of the Verbs is acceptable, which signals an INSTANTIATION. On the other hand, when the objects are not moveable as in (78a) and (79a), i.e., they are permanent, the -ing form is not compatible.

Also, some NONEVENT Verbs/Adjectives may appear with -ing to denote, in addition to more recognizable activities, particular EVENTS; they manifest INSTANTIATIONS. Compare the following pairs of sentences:

(80)a. He lives in Houston.
   b. He is living in Houston (just for this week).

(81)a. She is [silly.
       |a grand lady.
   b. She is being [silly.
       |a grand lady.

While (80a) with the non- ing form lives refers to a more or less permanent residence, (80b) containing the -ing form be living indicates a temporary residence; it is an OCCASION. Similarly, (81a) with the Copula be plus an Adjective/Noun merely identifies a person's quality, and (81b), on the other hand, with be...ing means 'to act in the manner indicated by the Noun or Adjective' and always refers to 'a temporary quality' (Scheffer 1975.65). In sum, the -ing element, which is ordinarily treated as an Imperfective Aspect marker (whether Durative, Progressive or Iterative), can be additionally interpreted as designating the EVENT property of INSTANTIATION. In other words, the one form
-ing can be either a usual 'Imperfective' or a less usual 'INSTANTIATION', and this dual capacity of one form is evidence for the link between traditional ASPECT and this less traditional ASPECT. Next, we will investigate some Spanish data to see the contrast between ESSENCE and ACCIDENT.

In Spanish, like in English, Adjectives require the copresence of a Copula to function as the Predicate of a sentence. However, there are two Copulas in the language, i.e. ser and estar, and the determination of their use can be very troublesome. According to Dorwick, Knorre and Ordas (hereafter DKO) (1983.125), 'Ser is used with Adjectives that describe the basic characteristics or inherent qualities of a person, place, or thing.' For instance (DKO 1983.125):

(82)a. Son cariñoso -s
    are affectionate-Pl
    'They are affectionate (people)'

b. La amistad es importante
    the friendship is important
    'Friendship is important'

McSpadden (1956.6) has a similar but more detailed description: ser is used 'to express an unchangeable truth; ... (and) to express a quality or characteristic considered (a) normal, (b) inherent, or (c) customary.' Examples follow (McSpadden 1956.6):

(83)a. Dios es bueno
    God is good-M
    'God is good'
b. En España el pan es barat-o
   in Spain the bread is cheap-M
   'In Spain bread is cheap'

As for estar, it 'is used with Adjectives to express conditions' (DKO 1983.125) and thus temporary/transitory properties. Adjectives in this group include furioso 'furious', nervioso 'nervous', cansado 'tired', etc. Consider the following examples given by Griselda Enciso (personal communication):

(84)a. El está furios -o
       he is    furious-M
       'He is furious'

b. Su abuela está cansad-a (hoy)
   his grandmother is    tired -F today
   'His grandmother is tired (today)'

Nevertheless, almost all the Adjectives can cooccur with both Copulas although certain cases require more a particular CONTEXT to make them sensible. Also, for some Adjectives, the copresence with ser or estar may present different interpretations. Examine the sentences below (McSpadden 1956.7 and Griselda Enciso):

(85)a. Pedro es mal-o
       Peter is bad-M
       'Peter is bad'

b. Pedro está mal-o
   Peter is    bad-M
   'Peter is ill'

(86)a. El pan es barat-o en España
       the bread is cheap-M in Spain
       'Bread (customarily) is cheap in Spain'

b. !Este pan está barat-o!
   this bread is    cheap-M
   'This bread is (so) cheap (today)'
   [has been reduced in price]
(87)a. María es descortés
Mary is rude
'Mary is rude (i.e. she is a rude person)'

b. Normalmente María es muy amable, pero hoy está muy descortés
normally Mary is very nice but today is very rude
'Normally Mary is very nice, but today she is acting rude'

(88)a. Ella es aleman-a
she is German-F
'She is German'

b. Ella está muy aleman-a hoy
she is very German-F today
'She is acting very German today'

(89)a. Su abuela es cansad-a
his grandmother is tired -F
'His grandmother is tiresome'

b. Su abuela está cansad-a
his grandmother is tired -F
'His grandmother is tired'

(90)a. Juan es enferm-o
John is sick -M
'John is a sick person'

b. Juan está enferm-o (ahora)
John is sick -M now
'John is sick (now)'

(91)a. Ella es hermos -a
she is beautiful-F
'She is beautiful'

b. Ella está hermos -a (hoy)
she is beautiful-F today
'She looks beautiful (today)'

As shown in the examples above, the difference between the use of ser and estar is not conditioned by the semantics of Adjectives; the Adjectives in the two sentences of each pair have the same form, e.g. malo in (85a-b) and barato in (86a-
b). Also, Spanish does not use any specific morpheme (such as -ing in English) that can be attached to Adjectives to indicate the semantic contrast between the two sentences of each pair; it is the Copulas ser and estar that reflect such a contrast, a contrast between permanence (ESSENCE) and temporariness (ACCIDENCE). For example, in (85a) with ser, malo indicates Peter's personality, an inherent quality, i.e., 'he is a bad man'; while (85b) with estar describes that he is sick (note the meaning of malo is changed), a temporary/unalusual state. Also, in (87a) with ser, descortés 'rude' designates one of Mary's characteristics, a permanent property, i.e., 'she is a rude person'; while in (87b) with estar, the same Adjective describes an occasion 'Mary's acting rude', a temporary circumstance. Such an ESSENCE--ACCIDENCE contrast is also present in (86) and (88)-(91), as indicated by the English glosses. In sum, the semantics of ESSENCE and ACCIDENCE in Spanish is signalled by the use of Copulas ser and estar respectively, the relationship of which can be diagrammed as follows:

```
ESSENCE                      ACCIDENCE
x-----------------------------x
ser+Adjective                estar+Adjective
```

Figure 11

However, although the Adjectives in (85)-(91) and many others are compatible with both ser and estar, they are not equally EVENT/STATE-like, which can be confirmed by their
varying compatibility with the Progressive form -ando to describe a specific occurrence (while ACTION Verbs can easily cooccur with this form -ando). Examples follow:

(92)a. Rosa está cantando
Rose is sing-Prog
'Rose is singing'

b. Luisa está comiendo una pera
Louise is eat-Prog a pear
'Louise is eating a pear'

c. Mi padre está esperando allí
my father is wait-Prog there
'My father is waiting there'

(93)a. María está siendo descortés
Mary is be-Prog rude
'Mary is being rude'

b. María está siendo ruidosa
Mary is be-Prog noisy -F
'Mary is being noisy'

c. María está siendo activa
Mary is be-Prog active-F
'Mary is being active'

(94)a. *Ella está siendo hermosa
she is be-Prog beautiful-F

b. *Juan está siendo enfermo
John is be-Prog sick -M

c. *Su abuela está siendo cansada
his grandmother is be-Prog tired -F

As shown above, ACTION Verbs like cantar 'sing', comer 'eat' and esperar 'wait' can take -ando to designate ongoing EVENTS, as presented in (92a-c), but not all STATE Verbs/Adjectives can. Adjectives like descortés 'rude', ruidoso 'noisy' and activo 'active' which are more ACTIVE/EVENT-like are capable of appearing in the -ando construction to denote particular EVENTS taking place at the speech moment (or at
the reference time), as given in (93a-c), while Adjectives like *hermoso* 'beautiful', *enfermo* 'sick' and *cansado* 'tired' which are more likely to describe prototypical STATE-like characteristics fail to cooccur with *-undo*, as shown in (94a-c). Accordingly, the Verbs/Adjectives in Spanish may constitute a continuum with EVENT and STATE as two extremes:

<table>
<thead>
<tr>
<th>EVENT</th>
<th>STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>cantar</td>
<td>descortés</td>
</tr>
<tr>
<td>'sing'</td>
<td>'rude'</td>
</tr>
<tr>
<td>comer</td>
<td>ruidoso</td>
</tr>
<tr>
<td>'eat'</td>
<td>'noisy'</td>
</tr>
<tr>
<td>beber</td>
<td>activo</td>
</tr>
<tr>
<td>'drink'</td>
<td>'active'</td>
</tr>
<tr>
<td>abrir</td>
<td>cariñoso</td>
</tr>
<tr>
<td>'open'</td>
<td>'affectionate'</td>
</tr>
</tbody>
</table>

Figure 12

In terms of the ESSENCE--ACCIDENT (or NONINSTANTIATION--INSTANTIATION) contrast, both the *estar* and *-undo* constructions designate specific instances, as opposed to the *ser* construction, which reflects the semantics of ESSENCE. The question now is: What is the difference between the *estar* and the *-undo* constructions? Compare the three constructions that Adjectives such as *descortés* 'rude' and *cariñoso* 'affectionate' can appear in:

(95)a. María *es* descortés
Mary is rude
'Mary is rude (she is a rude person)'

b. Normalmente María *es* muy amable, pero hoy *está* normally Mary is very nice but today is muy descortés
very rude
'Mnormally Mary is very nice, but today she is acting rude'
c. María está s -iendo descortés
    Mary is be-Prog rude
    'Mary is being rude (right now)'

(96)a. Juan es cariños -o
    John is affectionate-M
    'John is affectionate (he is an affectionate person)'

b. Normalmente Juan es indiferente, pero hoy está
    normally John is indifferent but today is
    muy cariños -o
    very affectionate-M
    'Normally John is cold, but today he is very affectionate'

c. Juan está s -iendo cariños -o
    John is be-Prog affectionate-M
    'John is being affectionate (right now)'

As indicated by the English glosses, the differences between the estar and -ando constructions, though both indicate ACCIDENCES, is a matter of degree: while the estar construction can be regarded as designating TEMPORARY characteristics, the -ando construction refers to TRANSITORY properties. Consequently, the ser, estar and -ando constructions constitute a three-way contrast, namely, the ESSENTIAL-TEMPORARY-TRANSITORY opposition, which can be schematized as Figure 13:

<table>
<thead>
<tr>
<th>ESSENTIAL</th>
<th>TEMPORARY</th>
<th>TRANSITORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>x----------</td>
<td>-----------------</td>
<td>------------</td>
</tr>
<tr>
<td>ser +</td>
<td>estar +</td>
<td>estar +</td>
</tr>
<tr>
<td>Adjective</td>
<td>Adjective</td>
<td>siendo +</td>
</tr>
<tr>
<td></td>
<td>Adjective</td>
<td>Adjective</td>
</tr>
</tbody>
</table>

Figure 13

While the leftmost extreme indicates an EVENT showing permanent properties, which has a timeless endurance, and is
grammatically manifested by *ser* + Adjective, the rightmost extreme designates a TRANSITORY one, which is tied-to-a-time/place and is expressed by *estar* + *siendo* + Adjective. In-between these two extremes is the one manifested by *estar* + Adjective, which depicts a less permanent instance but which does not necessarily happen at the speech/reference time. As a result, it is more ACCIDENTAL than the one expressed by *ser* + Adjective, but less so than the one expressed by *estar* + *siendo* + Adjective.

Furthermore, as in English (but not totally the same), the nature of PARTICIPANT plays a role in the acceptability of certain utterances. According to Hengeveld (1986.400), an *-ando* construction with Adjective as its Predicate needs to contain 'a term designating an event as its first argument.' For instance (Hengeveld 1986.400):

(97)a. *La clase* estaba *-iendo interesante*  
the lesson was be-Prog interesting  
'The lesson was being interesting'

b. *El concierto* estaba *-iendo monótono*  
the concert was be-Prog monotonous  
'The concert was being monotonous'

c. *La boda* estaba *-iendo alegre*  
the wedding was be-Prog merry  
'The wedding was being merry'

*La clase* 'the lesson' in (97a), *el concierto* 'the concert' in (97b) and *la boda* 'the wedding' in (97c) all designate activities, i.e., they are not static and more ACTION can be perceived, and hence compatible with the *-ando* construction; otherwise, the *-ando* construction is not preferred though
not completely rejected, as shown below (Hengeveld 1986. 400):

(98)a. ?Estoy s -iendo indiscreta
    am    be-Prog  indiscrete

b. Estoy indiscreta
    am  indiscrete
    'I am being indiscrete'

To conclude, as the discussion presented in this section shows, in order to characterize the nature of aspectual systems in English, Spanish and probably many others, we have to expand the traditional view of ASPECT to include, in addition to those mentioned earlier, the notion of ESSENCE--ACCIDENCE (or NONOCURRENCE--OCCURRENCE). The narrower traditional approach is incapable of capturing the real nature of ASPECT in these languages.

2.6 Alabama--a case of REMOTENESS--IMMEDIACY

In addition to the INTENSIVE ASPECT designated by -h-, Alabama has another aspectual feature, that is, the contrast between REMOTENESS and IMMEDIACY. First examine the following sentences (Davis and Hardy 1985.6-7):

(99)a. alikchi-k aļa-ti
    doctor - go  -Prox
    'The doctor is gone'

b. filip -ka    -n alikchi-li-ti
    Philip-Foreign- doctor -I -Prox
    'I doctored Philip'

(100)a. intohno-li-hchi
    work  -I -
    'I am working'
b. intohno-k chin-naaho-lool -o
   work - I -have -Semelfactive-
   'I have some workers'

(101) holisso-k holisso-ti
   book - book -Prox
   'The book is written'

(102) naa\l iika-ya naa\l iika-ti
   speak -Top speak -Prox
   'The speaker spoke'

As can be seen in the above examples, the Noun-Verb opposition seems to be less significant in Alabama than in languages like English. In other words, a stem (with or without affixes) may appear as a Subject (e.g. alikchi 'doctor' in [99a], holisso 'book' in [101] and naa\l iika 'speaker' in [102]), an Object (e.g. intohno 'worker' in [100b]) or a Predicate (e.g. alikchi 'doctor' in [99b], intohno 'work' in [100a], holisso 'write' in [101] and naa\l iika 'speak' in [102]). The compound forms work in a similar way. Examples follow (Davis and Hardy 1985.8-9):

(103)a. an-o-k aakaak -tihka-n in -naa\l iika-li-ti
     I - - chicken-pluck- him-speak -I -Prox
     'I spoke to the chickenplucker'

     b. aakaak -tihka-li-hchi
        chicken-pluck-I -
        'I am chickenplucking'

(104)a. hissi-koloffi-k aay -o
     hair -cut - come-
     'The barber has come'

     b. roy-ka -ya hissi-koloffi-hchi
        Roy-Foreign-Top hair -cut -
        'Roy is getting his hair cut'
        'Roy is cutting hair'

With the blurred dichotomy of Noun and Verb in mind (see also Davis and Hardy 1985.6), consider now the following
sentences with compound forms as the Predicate (Davis and Hardy's field notes):

(105)a. roy-ka -ya hissi-koloffi-Ø
Roy-Foreign-Top hair -cut -
'Roy is a barber'

b. roy-ka -ya hissi-koloffi-hchi
Roy-Foreign-Top hair -cut -
'Roy is cutting hair'

(106)a. roy-ka -ya holisso-aobaachi-Ø
Roy-Foreign-Top book -teach -
'Roy is a teacher'

b. roy-ka -ya holisso-aobaachi-hchi
Roy-Foreign-Top book -teach -
'Roy is teaching'

According to Booker (1980.113), -hchi- in (105b) and (106b) is a Present Tense marker, but such a treatment cannot characterize the difference between (105a)-(106a) and (105b)-(106b). As indicated in the English glosses, while (105a) and (106a) with non-suffixed compounds are interpreted as statements about people's professions (which are NONEVENTS and are, as termed by Lawler [1972.249], 'occupational' generic), (105) and (106) (as well as [103]) with compounds having -hchi- seem to indicate ongoing ACTIONS expressed by Verbs in question. That is, for instance, in (105b) Roy is not (necessarily) a professional barber, but happens to be cutting hair at the moment of speech. In this respect, -hchi- seems appropriate to be regarded as a Continuative/Progressive Aspect marker, as suggested by Lupardus (1982.173 & 175) on the basis of the following examples:
(107a) ipa-li-hchi
  eat-I -
  'I am eating (at this moment)'

b. chi-batap-li -li-hchi
  you-hit -Act-I -
  'I am hitting you'

However, such an interpretation appears less plausible in accounting for the following examples that contain STA-
TIVE Verbs like piisa 'mean' and nominal Predicates like
heia in-taata 'Heather's father' (Davis and Hardy's field notes, and Davis and Hardy 1985.5):

(108a) roy-ka -ya piisa
  Roy-Foreign-Top mean
  'Roy is mean'

b. roy-ka -ya piisa-hchi
  Roy-Foreign-Top mean -
  'Roy is acting mean'

(109a) roy-ka -ya heia in -taata
  Roy-Foreign-Top Heather her-father
  'Roy is Heather's father'

b. roy-ka -ya heia in -taata -hchi
  Roy-Foreign-Top Heather her-father-
  'Roy is acting like Heather's father'

As indicated in the English glosses, the contrast between
(108a) and (108b) can probably be that the former expresses a more permanent/unchanging property (i.e. ESSENCE) whereas the latter grammatically manifested by the aspectual element -hchi- describes a more transitory characteristic and hence a particular EVENT (i.e. ACCIDENCE). (Recall English exam-
examples [73b] and [74b] with the -ing + Adjective/Noun construc-
tions). Similarly, we may postulate the difference between
(109a-b) is that in (109a), Roy is Heather's real father,
which is an innate and enduring relationship, indicated by the absence of -hchi-, while in (109b), Roy is merely acting like Heather's father and thus the presence of the grammatical element -hchi-. In other words, it seems more adequate to regard the opposition of the presence and absence of -hchi- as a reflection of the ESSENCE--ACCIDENTE contrast, similar to the English and Spanish cases discussed in the preceding session.

However, such a treatment becomes less plausible when we include another element in the language, i.e. -o into account. Booker (1980.113) treats the morpheme -o as a Present Tense marker, following Lupardus (as cited in Booker 1980.113), who first identified the element as a Present Completive marker. Later, Lupardus (1982.175-76) reanalyses it as a Perfective Aspect marker 'because (1) -o participates in the derivation of -lo "definite future" from -la "indefinite future", and (2) forms with -o are translated by speakers variously as present and past tense.' Thus, according to Lupardus (1982), -o is a Perfective marker and -hchi- a Progressive one, as given in the following examples (Lupardus 1982.173 and Davis and Hardy's field notes):

(110)a. ipa-1-o
eat-I-
'I have just eaten'
[at this moment, action completed]

b. ipa-li-hchi
eat-I-
'I am eating'
[at this moment, action in progress]
(111)a. roy-ka -k choff-o
   Roy-Foreign- jump -
   'Roy has been jumping'
   [quit just before somebody came in]

   b. roy-ka -k choffi-hchi
   Roy-Foreign- jump -
   'Roy is jumping'

(112)a. bil -o
       melt-
       'It melted'

   b. bila-hchi
       melt-
       'It is melting'

(113)a. habka-l-o
       bathe-I-
       'I took a bath'

   b. habka-li-hchi
       bathe-I-
       'I am bathing (in water)'

Such a treatment seems acceptable when, as shown above, the
EVENTS in question are more ACTION-like. However, Lupal-
dus's interpretation of -o as a Perfective Aspect marker, as
well as Bocker's (1980), appears incapable of characterizing
the occurrences of -o in the following sentences (Davis and
Hardy's field notes):

(114)a. chob-o
       big -
       'It's big'

   b. hayook-o
       deep -
       'It's deep'

   c. roy-ka -ya yusti -f -o-n wiik -o
       Roy-Foreign-Top Houston-Location- exist-
       'Roy is in Houston'
   "Roy lives in Houston'
d. roy-ka -ya niy-o
    Roy-Foreign-Top fat-
    'Roy is getting fatter'

As indicated in the English equivalents, none of the cases above appears to denote a Completive/Perfetive EVENT; (114a-c) describe STATES without presenting any sense of EVENT COMPLETION and (114d) an increasing degree of a quality 'fatness', which shows even more clearly that the EVENT in question has nothing to do with COMPLETENESS/PERFECTIVITY. Clearly the nature of -o needs to be reconsidered.

As pointed out by Davis (personal communication), (114a) is uttered when 'something is right here and it is big', (114b) is used in a situation when 'a person is stepping in a ditch and finding that it is deep', (114c) represents that 'Roy is in Houston, but he does not live there', and (114d) is said when the speaker 'just noticed the fact that Roy is getting fatter'. Taking into consideration the just-stated information, we may notice that the element -o, instead of indicating the COMPLETION of an EVENT, shows the speaker's current and/or sudden perception of that situation. In other words, -o designates the speaker's imposing himself upon the situation he is depicting.

The speaker's intrusion on the situation in question is very crucial in determining which form to use in Alabama. Whether to choose an unmodified Verb, a Verb with -hchi- or a Verb with -o depends on the speaker's loose or close INTERACTION with the situation. Observe the sentences below
first (Davis and Hardy's field notes):

(115) a. halapp-o
     sharp -
     'It's sharp'
     [When I feel the knife]

b. halappa-hchi
     sharp -
     'It's sharp'
     [When keeping away from it I warn you]

(116) a. roy-ka -ya maa -ni =h =y -q
     Roy-Foreign-Top Direction-fat=INTENS=fat-
     'Roy's gotten fatter'
     [He's sitting here as I talk; right now I see him]

b. roy-ka -ya maa -ni =h =y -hchi
     Roy-Foreign-Top Direction-fat=INTENS=fat-
     'Roy's gotten fatter'
     [Having seen him and telling someone]

The difference between the use of -hchi- and -q, as signaled by the additional information given in the brackets, lies in the degree of IMMEDIACY/closeness of the EVENT to the speaker, temporally and/or spatially. To be more specific, -q is used when an EVENT is more IMMEDIATE to the speaker, or, in the sense that the degree of the speaker's INTERACTION with the situation is greater; and -hchi-, comparatively less IMMEDIATE and yet not so REMOTE as the unmarked one (which will be further discussed later). To make such a contrast even clearer, consider the following sentences (Davis and Hardy's field notes):

(117) a. cha-ya -q
       I -hot-
       'I have got a fever'
       [Answer to the doctor when I got it in the doctor's office]
b. cha-yaa-hchi
   I -hot-
   'I have got a fever'
   [Answer to the doctor about why I came]

c. cha-yaa-ʔ
   I -hot-
   'I have got a fever'
   [Not an answer to 'What's wrong?'; a volunteered remark]

(118)a. roy-ka  -ya an-taat  -ʔ
   Roy-Foreign-Top my-father-
   'Roy became my (step)father'
   [Saying right at the end of the ceremony]

b. roy-ka  -ya an-taat a-hchi
   Roy-Foreign-Top my-father-
   'Roy is becoming my (step)father'
   [During the ceremony]

c. roy-ka  -ya an-taat a-ʔ
   Roy-Foreign-Top my-father-
   'Roy is my father'

As indicated in the bracketed information, the difference among (117a-c) or among (118a-c) is the different degrees of the speaker's INTERACTION with the situation in question: right here and now and is hence an IMMEDIATE EVENT, designating the speaker's being greatly INTERACTIVE with the EVENT and grammatically marked by -ʔ (e.g. [117a] and [118a]); more REMOTE or STATE-like and is indicated by -ʔ (e.g. [117c] and [118c]); in-between is the one less IMMEDIATE but still less REMOTE, and is marked by -hchi- (e.g. [117b] and [118b]). In other words, the semantics of -ʔ vs. -hchi- vs. -ʔ is REMOTE vs. IMMEDIATE, which can also be conceived as NONINTERACTIVE vs. INTERACTIVE. The three-way contrast therefore constitutes a continuum of Figure 14:
Remote/ Immediate/
Noninteractive Interactive
x---------------------x---------------------x
-Ø---------------------hchi---------------------o

Figure 14

The above discussion again shows that the traditional/temporal views of ASPECT—Imperfective vs. Perfective, Progressive vs. Nonprogressive, etc. cannot adequately characterize the Alabama aspektual system. Evidently, in order to understand Aspect systems such as the one in Alabama, the traditional views need to be modified.

2.7 Summary

In this chapter, we have examined data from languages, related or unrelated, such as Chamorro, Mokilese, Alabama, Fore, Ute, Amharic, Mandarin Chinese, Songhai, Tongan, Yuka-ghir, English and Spanish. From this wide range of languages, we have illustrated that in order to understand accurately the nature of the aspektual systems in these languages and perhaps in many others, we should broaden the traditional perception of ASPECT. The traditional aspektual oppositions, e.g. Perfective—Imperfective, Completive—Incomplete, Progressive—Nonprogressive, etc. restrict ASPECT to a temporal interpretation and thus fail to characterize the aspektual systems in those languages mentioned above, for which the notions of INTERRUPTION, REALIZATION, INTENSITY, DIMINUTION, ESSENCE—ACCIDENT, REMOTENESS—IMMEDIACY and perhaps others need to be included in order to
better understand the nature of ASPECT. Of course here we do not wish to exclude the traditional view of ASPECT, i.e. the IMPERFECTIVE--PERFECTIVE opposition from the account of aspeclural systems in different languages where it is appropriate; however, this opposition will take its place alongside HOLISTIC--RUPTURED, UNREALIZED--REALIZED, GENERAL--SPECIFIC, etc. as one possible implementation of the overarching semantics of DIFFUSE--FOCUSSED. The possible aspeclural principles suggested here may be perceived as equivalent to each other although in some cases only to some extent; they are not contradictory to one another. Below let us re-examine the above-mentioned aspeclural SUBSTANCES.

First, recall our discussion (in Chapter One) of the contrast between the presence and absence of the prefix ถอน- in Jakarta Malay. There we have demonstrated that the two continua UNSUCCESSFUL--SUCCESSFUL and GENERAL--SPECIFIC (or IMPERFECTIVE--PERFECTIVE) are present simultaneously. The connection of the two semantic strands and the global aspeclural principle of DIFFUSE--FOCUSSED in Jakarta Malay can be illustrated as follows:

<table>
<thead>
<tr>
<th>DIFFUSE:</th>
<th>FOCUSSED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNSUCCESSFUL</td>
<td>SUCCESSFUL</td>
</tr>
<tr>
<td>GENERAL</td>
<td>SPECIFIC</td>
</tr>
<tr>
<td>(/IMPERFECTIVE)</td>
<td>(/PERFECTIVE)</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
</tbody>
</table>

Jakarta: ถอน-
Malay ถอน-

Figure 15
Such a phenomenon (i.e. parallelism between/among various aspectual principles) is not peculiar to Jakarta Malay, and we can also find its presence in Mokilese and Finnish. Our earlier discussion on Mokilese has already shown that the UNREALIZED--REALIZED opposition is very crucial in understanding the aspectual system of that language, which can be schematized below:

\[
\begin{array}{ll}
\text{UNREALIZED:} & \text{REALIZED:} \\
\text{FAILURE/ATTEMPT} & \text{SUCCESS} \\
\text{NONPARTICULAR} & \text{PARTICULAR} \\
\text{Partially-} & \text{Fully-affected} \\
\text{affected Object} & \text{Object} \\
\hline
\text{V-Ø} & \text{VV} & \text{V-di}
\end{array}
\]

Figure 16

We have also pointed out that the Mokilese aspectual system designates another experience of the basic DIFFUSE--FOCUSSED principle. That is, the left-most extreme of the scale in Figure 16, i.e. the UNREALIZED end, indicates a sketchy, less-well-formed and DIFFUSE EVENT which can be a FAILURE/ATTEMPT, a TIME/SPACE-unbounded EVENT (i.e. a NONPARTICULAR one) or an EVENT with its Object partially affected. Moving away from this extreme is a better-defined, success-in-the-making and TIME/SPACE-bounded EVENT, a relatively more FOCUSSED EVENT. Finally, the right-most extreme, i.e. the REALIZED end, represents a FOCUSSED EVENT which can be a SUCCESSFUL EVENT, a TIME/SPACE-bounded EVENT (i.e. a PARTICULAR one), or an EVENT with a totally-affected Object.
A similar situation is found in Finnish. However, comparing the aspectual systems of Finnish, Mokilese and Jakarta Malay, we observe that the semantic opposition of FAILURE/ATTEMPT--SUCCESS is less crucial/relevant to Finnish than to Mokilese or Jakarta Malay. As for the NONPARTICULAR--PARTicular contrast found in Mokilese, it is grammatically signalled in a different way in Finnish. In Mokilese, without additional CONTEXTUAL information, either a NONPARTICULAR EVENT (marked by an unsuffixed Verb) or a PARTICULAR one (marked by a suffixed Verb) designates an instance only. In order to describe one's habit/profession (i.e. a series of the same ACTION), the Habitual marker kin has to be present. For instance (Harrison 1976.72):

(118)Mahnsang kin wia -Ø ahr paj in kohn suhkoa
    bird   Hab make- Poss nest at top tree
'Birds build their nests in treetops'

But in Finnish, although the V0-Part construction can indicate an instance itself, like the n-V form in Jakarta Malay, it can also express a habit without requiring additional markings, as shown below (Lehtinen 1963.61):

(119)Hän juo -Ø viini-ä
    he   drink-3Sg wine -Part
'He drinks wine'
    'He is drinking (the) wine'

As to the AFFECTEDNESS of the Object in an EVENT, we have noticed that the PATIENT PARTICIPANT/Object in both Finnish and Mokilese plays a very crucial role (although grammatically the two languages have different markings) in interpreting whether an EVENT in question is Imperfective or
Perfective in Finnish and UNSUCCESSFUL or SUCCESSFUL in Mokilese. In Jakarta Malay, however, the PATIENT PARTICI-
PANT/Object is less decisive with respect to the above-
mentioned function. Yet the Object, if there is one, tends
to be DEFINITE when the EVENT is a SUCCESSFUL or SPECIFIC
one. To sum up, the semantic contrasts along with the
markings in these three languages can be shown as follows:

\[ x------@--------x------@------x \]

**Mokilese:**
- V-\( \emptyset \)
- VV
- V-di
- UNREALIZED
- REALIZED
- FAILURE/ATTEMPT
- SUCCESS
- NONPARTICULAR
- PARTICULAR
- Partially-
  - Totally-
  - affected Object
  - affected Object

**Finnish:**
- VO-Part
- \texttt{olla} V-massa(0)
- VO-Acc
- IMPERFECTIVE
- PERFECTIVE
- Partially-
  - Totally-
  - affected Object
  - affected Object

**Jakarta:**
- \texttt{\( \emptyset \)}
- \texttt{lagi} \texttt{\( \emptyset \)}
- \texttt{lagi} \texttt{\( \emptyset \)}
- \texttt{\( \emptyset \)}
- UNSUCCESSFUL
- SUCCESSFUL
- GENERAL
- SPECIFIC

**Figure 17**

The connection between the global aspectual principle (i.e.
the DIFFUSE--FOCUSSED contrast) and the above-mentioned
individual Aspect systems can be illustrated in Figure 18:

\[ x---------@---------x \]

**DIFFUSE:**
- UNREALIZED
- GENERAL
- IMPERFECTIVE

**FOCUSSED:**
- REALIZED
- SPECIFIC
- PERFECTIVE

**Figure 18**
Next, recall our discussion, especially on Spanish with respect to the fundamental aspectual principle ESSENCE--ACCIDENCE (reproduced as follows):

ESSENCE                     ACCIDENCE
x--------------------------x--------------------------x

Spanish: ser+Adj       estar+Adj    estar+siendo+Adj

Figure 19

Here again the ESSENCE--ACCIDENCE opposition appears to be another indication of the aspectual principle DIFFUSE--FOCUSSED. While a permanent or enduring state (i.e. ESSENCE) designates no change, attracts no attention and shows no focus, both a TEMPORARY and a TRANSITORY EVENT denote focussed stages, i.e. being concentrated on; they are more temporally (or perhaps also spatially) bounded. Apparently, the ESSENCE--ACCIDENCE opposition is another way to manifest the semantics of the DIFFUSE--FOCUSSED principle, as illustrated below:

DIFFUSE:                     FOCUSSED:
ESSENCE                     ACCIDENCE
x--------------------------x--------------------------x

Spanish: ser+Adj       estar+Adj    estar+siendo+Adj

Figure 20

Although both the IMPERFECTIVE--PERFECTIVE and the ESSENCE--ACCIDENCE contrast can be considered as designating the DIFFUSE--FOCUSSED opposition, they cannot be perceived exactly equivalent to each other. That is, for instance, although the ser construction in Spanish designates one's
habits/characteristics, and can hence be reperceived as an IMPERFECTIVE (Continuative) Aspect, the _estar_ and _-ando_ constructions do not indicate a Perfective Aspect even though they are comparatively closer to the PERFECTIVE extreme than the _ser_ construction. In sum, with respect to the ESSENCE—ACCIDENCE and IMPERFECTIVE—PERFECTIVE principles, the aspectual systems of the languages discussed so far may look like the following:

**DIFFUSE:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSENCE</td>
<td>ACCIDENCE</td>
<td>IMPERFECTIVE</td>
</tr>
<tr>
<td>x-------@-------x-------x-------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FOCUSED:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ESSENCE</td>
<td>PERFECTIVE</td>
<td></td>
</tr>
<tr>
<td>x-------@-------x-------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Jakarta: \( \eta \)-V  \( \eta \)-V  \( \eta \)-V
Malay
Mokilese: V-\( \emptyset \)  VV  V-di
Finnish: V0-Part  olla V-massa(0)  VO-Acc
Spanish: _ser+Adj_  _estar+Adj_  _estar+siendo+Adj_

Figure 21

The last aspectual principle to re-examine is the REMOTENESS—IMMEDIACY opposition, which is fundamental in characterizing the Alabama Aspect system, \( \emptyset \) vs. \(-hchi\) vs. \(-o\). As pointed out earlier, the choice among \( \emptyset \), \(-hchi\) or \(-o\) is not determined by the EVENT in question, but the speaker's INTERACTION with the EVENT he is describing: when the EVENT named is so REMOTE and STATE-like that the speaker shows no INTERACTION with it, the unmarked verbal form is chosen; when the EVENT is IMMEDIATE and the speaker is greatly INTERACTIVE with it, the element \(-o\) is used; in
between these two extremes, \textit{\textasciitilde hchi\textasciitilde} is used. As expected, the REMOTE--IMMEDIATE contrast is another manifestation of the DIFFUSE--FOCUSSED opposition, with the REMOTE extreme equivalent to the DIFFUSE end, and the IMMEDIATE one equivalent to the FOCUSSED:

\begin{align*}
\text{DIFFUSE:} & \quad \text{FOCUSSED:} \\
\text{REMOTE/} & \quad \text{IMMEDIATE/} \\
\text{NONINTERACTIVE} & \quad \text{INTERACTIVE} \\
x-------------------x & \quad x-------------------x
\end{align*}

\begin{align*}
\text{Alabama:} & \quad \text{\textit{\textasciitilde q}} \quad \text{\textit{\textasciitilde hchi\textasciitilde}} \quad \text{\textit{\textasciitilde q}}
\end{align*}

Figure 22

The REMOTE--IMMEDIATE opposition cannot be reperceived as other aspectual principles. This is understandable because the former principle focuses on the speaker's INTERACTION with the EVENT while other principles stress the EVENT (either its internal structure or its quality) and/or the PARTICIPANT(S). In other words, although the fundamental aspectual principle is the same (i.e. the DIFFUSE--FOCUSSED opposition), because what is concentrated on may be different from language to language (or from system to system), certain aspectual oppositions appear to be more relevant to a particular language.

Now if we consider the contrast between NONINTERRUPTION and INTERRUPTION (crucial to understanding the Chamorro aspectual system), we may as well regard it as an indication of the DIFFUSE--FOCUSSED opposition. When an EVENT is INTERRUPTED, the interrupting point is expectedly the one
that is focussed upon; when there is no INTERRUPTION, no
attention is to be cast. Hence:

DIFFUSE: FOCUSED:
NONINTERUPTION INTERRUPTION
x-----------------------------x

Chamorro: V VV

Figure 23

As to the other aspectual principles discussed in this
chapter, they are not equally suitable/relevant to the
account of Chamorro ASPECT. For instance, while the re-
duplicated form of Verbs can indicate a Habitual EVENT (e.g.
[12a]) or an ongoing ACTION (e.g. [4c]), the basic Verb may
sometimes designate a Perfective/Compleitive EVENT (e.g.
[4a]) and sometimes a Durative one (e.g. [4b]) (examples
repeated below):

(12)a. Man-bebende guihan kada pupuengi
      -sell(Rd) fish each evening
      'He sells fish every evening'

(4) a. Malagu yo' nigap
      run I yesterday
      'I ran yesterday'

b. Malang i ga'lagu
   hungry the dog
   'The dog is hungry'

c. Ma lalalatde i famagu'on
   they scold(Rd) the children
   'They are scolding the children'

In other words, the same form may designate two extremes of
a continuum, as shown below:
Clearly, as discussed before, this is an instance to show that the traditional Imperfective—Perfective view of ASPECT is incapable of accounting for certain aspeckual systems in languages. The DIFFUSE—FOCUSSED opposition is postulated as the fundamental principle for understanding the nature of ASPECT.

Now, let us consider the notions of EVENT INTENSITY and DIMINUTION. First of all, we have to note that the opposite of INTENSIVE is not necessarily DIMINUTIVE, nor vice versa. Here we consider the opposite to both INTENSIVE and DIMINUTIVE EVENTS is a PLAIN/UNMODIFIED one and hence the two continua look like the following:

```
<table>
<thead>
<tr>
<th>PLAIN</th>
<th>INTENSIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>x---------------x</td>
<td></td>
</tr>
<tr>
<td>Fore</td>
<td>-Ø</td>
</tr>
<tr>
<td>Songhai</td>
<td>V</td>
</tr>
</tbody>
</table>
```

```
<table>
<thead>
<tr>
<th>PLAIN</th>
<th>DIMINUTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>x---------------x</td>
<td></td>
</tr>
<tr>
<td>Fore</td>
<td>-ka</td>
</tr>
<tr>
<td>Songhai</td>
<td>VV</td>
</tr>
</tbody>
</table>
```

As expected, these two principles also manifest the DIFFUSE—FOCUSSED contrast. That is, since the EVENT INTENSITY/DIMINUTION indicates that the EVENT is intense/diminutive (or concentrated) upon one point, the semantics
of INTENSITY/DIMINUTION can be reconceived as FOCUS; thus,

DIFFUSE:
PLAIN

FOCUSSED:
INTENSIVE/
DIMINUTIVE

X-----------------------------x

Figure 26

So far we have examined the possible connections among
the aspectual SUBSTANCES discussed in this chapter. As we
have seen, it appears that all these aspectual principles
can be conceived as manifesting the DIFFUSE--FOCUSSED oppo-
sition. As a result, we may as well postulate that the
DIFFUSE--FOCUSSED contrast is the fundamental principle in
the account of aspectual systems in languages. It is the
nature of ASPECT.

Accepting that the DIFFUSE--FOCUSSED opposition is the
basic aspectual principle, we then can understand why cer-
tain structures in a language serve as indicating foregroun-
ding information while others backgrounder. As expected,
if an aspectual marker is used to signal a FOCUSSED EVENT,
it is very likely that an utterance containing this marker
expresses foregrounding information; otherwise, back-
grounding. However, what we point out here is not the same
as what Hopper (1977 & 1979) claims. According to Hopper
(1977 & 1979), Aspect is one of the grammatical devices for
indicating foregrounding or backgroundering information, par-
ticularly that a Perfective Aspect marker is to signal fore-
grounding and an Imperfective backgroundering. Yet this is
not always the case. Mandarin Chinese, among other languages, illustrates an example not completely agreeing with such a claim. As we will see in Chapters Four and Five, that language tends to have marked verbal forms designating foregrounding information and unmarked forms backgrounding, and the marked and unmarked verbal forms do not designate the so-called Perfective and Imperfective Aspects respectively. In sum, we posit that the DIFFUSE--FOCUSSED opposition, instead of Imperfective--Perfective one, is the primary aspectual principle and it may signal the backgrounding--foregrounding contrast.

If our postulation is correct, i.e. the DIFFUSE--FOCUSSED opposition is the primary principle of ASPECT, it may help explain why a language may have multiple aspectual systems: different systems focus on different parts and thus may co-exist in one language. For example, in Amharic the INTENSIVE form can occur in either IMPERFECTIVE or PERFECTIVE construction, as indicated in the following sentences (Huang's field notes):

(120)Ebud-u sEw mEkina-h -En sEbbEr-o -t -all
    mad -Def man car -2M.Poss-Acc break -3M-3M-
    'The mad man has broken your car'

(121)Ebud-u sEw mEkina-h -En EyE -sEbAbbEr -E -w
    mad -Def man car -2M.Poss-Acc Imprf-break(Rd)-3M-3M
    n -Ew
    be-3M
    'The mad man is smashing your car'

(122)Ebud-u sEw mEkina-h -En sEbAbbEr-o -t -all
    mad -Def man car -2M.Poss-Acc break(Rd)-3M-3M-
    'The mad man has smashed your car'
We have already noted that the PLAIN--INTENSIVE opposition and the IMPERFECTIVE--PERFECTIVE principle focus on different parts of EVENTS; consequently, they may cooccur in one structure without contradicting each other, i.e. the structure in question has two (or more) points that are concentrated on.

To conclude the present discussion on the nature of ASPECT, we posit that the DIFFUSE--FOCUSSED opposition is the fundamental aspectual principle. Owing to what is concentrated on, different manifestations of the DIFFUSE--FOCUSSED principle are chosen in accounting for Aspect systems of different languages. As we have shown above, focus can be placed on PARTICIPANT, such as the PATIENT PARTICIPANT/Object in Finnish; it can be laid on the EVENT in question, which can be further subcategorized into focussing on a mid-point (e.g. INTERRUPTION in Chamorro), the final goal-attainment stage (e.g. REALIZATION in Mokilese), its quality (e.g. INTENSITY in Fore or DIMINUTION in Songhai), etc. Also, focus may be cast on the speaker's INTERACTION with an EVENT (e.g. REMOTENESS--IMMEDIACY in Alabama).

In the following chapter, we will examine the categories like TIME/Tense, FOCUS/Voice, ROLE/Grammatical Relations and MOOD/Mood that are frequently related to ASPECT; and we will explain how and why certain categories like these are likely to blend with ASPECT.
Footnotes

1 Chamorro is a Western Austronesian language. Below is a diagram (taken from Ruhlen 1985.282-83) showing part of the Austronesian Family:

```
Austronesian
    |                   |                   |
    |                   |                   |
    | Atayalic          | Chamorro          |
    | - Tsouic         | - Palauan         |
    | - Paiwanic        | - Yapese          |
    |                   | - Northern        |
    |                   | - Philippines     |
    |                   | - Southern        |
    |                   | - Philippines     |
    |                   | - Meso-Philippine |
    |                   | - South Mindanao  |
    |                   | - Celebes         |
    |                   | - Borneo          |
    |                   | - Sama-Bajaw      |
    |                   | - Sundic          |
    | Malayo-          | Western           |
    | Polynesian        | - South Mindanao  |
    |                   | - Celebes         |
    |                   | - Borneo          |
    |                   | - Sama-Bajaw      |
    |                   | - Sundic          |
    | Central-Eastern   |                   |
```

2 Topping (1973/1980b.259) also points out that in Chamorro, the 'Progressive' (or 'Continuative') Aspect may be marked by reduplication of words in a clause which are not Verbs. Examples follow (Topping 1973/1980b.259 & 271, and Topping 1969/1980a.257):

1. (1) a. Hafa bidan-ñiha
   what do -their
   'What did they do?'

   b. Hafa bidan -ñiñiha?
   what do -their(Rd)
   'What are/were they doing?'

2. (2) a. Hu hatsan maisa yo'
   I lift alone I
   'I lifted myself'

   b. Ha hatsan mamaisa gue'
   he lift alone(Rd) he
   'He is lifting himself'

3. (3) a. Hayi enao i 'chochong -mu
   who that the companion(Rd)-your
   'Who is your friend there?'
b. Manu karetata-mu
    which car(Rd) -your
    'Which is your car?'

In the present discussion of the Chamorro aspectual system, we limit ourselves to Verbs only, unmarked and reduplicated.

3

The Chamorro data used here and later follow the spelling system adopted in Topping 1969/1980a and 1973/1980b. The examples taken from Gibson 1980 and C&T 1985 have been modified in order to conform with Topping's.

4

Although I expect that the Adverb sesso 'often' works in a similar way like kada dia 'every day' or todu i tiempo 'all the time', I do not find in Topping 1969/1980a and 1973/1980b any examples with sesso 'often' that take re-duplicated verbal forms. Moreover, C&T 1985 points out explicitly that with this Adverb, Verbs occurring in their reduplicated form are only 'marginally acceptable', as illustrated below (C&T 1985:231):

(1) a. Sesso di ha -tago' yo' para i tenda
    often Comp 3Sg-send me to the store
    'Often he would send me to the store'

b. ?Sesso di ha -tatago' yo' para i tenda
    often Comp 3Sg-send(Rd) me to the store

The English gloss in (1a) with the modal 'would' seems to indicate that the EVENT 'his sending me to the store' takes place regularly; i.e. it is 'habitual', a constantly present characteristic. There is no INTERRUPTION in between and thus a non-reduplicated verbal form. Further study is needed.

5

Mokilese and its related languages can be schematized as follows (taken from Harrison 1976:8 with some modification):

```
  Micronesian  --- Trukic  ---
       Ponapeic  --- Ngatikese  ---
                         Mokilese
                         Pingelapese
                         Woleaian
                         Carolinean
                         Trukese
       - Kusalean
       - Marshallese
       - Gilbertese
       - Nauruan
```
6 Different suffixes contrast with each other and mean differently, which is beyond the scope of the present discussion. For details, see Harrison 1976.229-40.

7 Although the Objects given in sentences (16a)-(18a) are all Definite, they can be Indefinite as well. Examples follow (Harrison 1976.224 & 299):

(1) Ngoah loakjidih-da mwumw koalik-men
    I fish - fish big -one
    'I caught a big fish'

(2) Arai wiah-da pohs-pas
    they make - boat-one
    'They built a boat'

As for the usage of the Indefinite Determiners -men, -pas and others, see Harrison 1976.74-76 & 104.

8 The affix -pang in sentence (25a) is, according to Harrison (1976.202-25), one of the orientational affixes. When it is used with a Verb of motion, 'it suggests motion in the direction of some place or object without implying that the place, or object was or will be reached.'

9 The genetic relationships of these languages and others, according to Nathan (1977.3), can be diagrammed as follows:

```
      Tunica
      - Chitimacha
      - Atakapa
Gulf --- Natchez
      - Muskogean
          Western --- Choctaw-Chickasaw
          - Muskogean
              - Apalachee
              - Alabama-Koasati
          Eastern --- Hitchiti-Mikasuki
              - Creek-Seminole
```

10 The Alabama data in the present discussion are from different sources. In order to normalize their transcription, here we follow Davis and Hardy 1985, and Hardy and Montler 1986. For instance, -ci is transcribed as -ch and the morpheme -cli- will be transcribed as -hchi- in the later discussion.
Concerning the position of -h- and the loss of -t- in sentence (41a) (or other consonants like -p- in [41b]), see Hardy and Montler 1986 for phonological constraints in the language.

'Disfixation' as used by Hardy and Montler (1986.9) refers to 'the loss of part of the penultimate syllable of the stem'. The extent of the loss of segments within the syllable determines the copresence of a compensatory vocalic lengthening. As for the choice of 'disfixation' with or without a compensatory lengthening, it appears to be lexically determined. Also (1986.17) 'the semantic difference between h-infix and disfixation is minimal, although the former seems to carry a closer association with intensity, probably due to its basic association with durative verbs, where "more" must be interpreted as increased intensity, rather than a repeated momentary action.' For further information, see Hardy and Montler 1986.9-12.

For instance, the value of EVENT INTENSITY in Hopi is treated as a category of 'Voice' in Whorf 1956b.146, 'Hopi has abundant conjugational and lexical means of expressing duration, intensity ... some of the "voices" express intensity ...'

The element -h- in Creek is described by Booker (1980.120) as depicting an ACTION which took place earlier the same day or even the night before. In Seminole, according to Nathan (1977.112), -h- designates Recent Past--from the night before the present time up to a few minutes before the present. In Mikasuki, Derrick-Mescua (1980) and Boynton (1984) both treat it as the Past-three-class marker whose actual temporal range is not clearly stated, probably from one week ago up to yesterday. In this case, while -h- in Creek and Seminole can be reasonably regarded as a Recent Past Tense marker, as Booker (1980.109) suggests, -h- in Mikasuki may not as well be considered a Recent Past Tense marker. 'Less Recent' (or 'secondary Recent') Past Tense marker may be a more appropriate term for -h- in Mikasuki.

In Choctaw, -h-, the INSTANTANEOUS Aspect marker, can cooccur with -n- to give an Iterative sense. Examples follow (Nicklas 1972.76):

(1) pihinsali tok
    'I saw it again and again'
    'I kept on looking at it'
(2) lahankna
'(used to describe a blinking yellow streetlight)'
'(something) kept turning yellow'

16
In their later discussion, Hardy and Montler (1986) seem to have changed their earlier position. For details, see Hardy and Montler 1986.15-16.

17
Fore and other members of the Eastern New Guinea Highlands Stock, according to Haiman (1980), can be subgrouped as follows (taken from Haiman 1980.xxxi):

<table>
<thead>
<tr>
<th>W</th>
<th>K</th>
<th>E</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiru</td>
<td>Karam</td>
<td>Western</td>
<td>Central</td>
</tr>
<tr>
<td>Family</td>
<td>Family</td>
<td>Family</td>
<td>Central</td>
</tr>
<tr>
<td></td>
<td>East</td>
<td>Eastern</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>Karam</td>
<td>Enga</td>
<td>Chimbu</td>
<td>Bena Bena</td>
</tr>
<tr>
<td>Kobon</td>
<td>Kowa</td>
<td>Chuave</td>
<td>Gahuku</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salt-Yui</td>
<td>Gimi</td>
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<td></td>
<td>Awa</td>
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<td>Fore</td>
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<td>Siane</td>
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<td>Usaruza</td>
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<td></td>
<td></td>
<td></td>
<td>Yagaria</td>
</tr>
</tbody>
</table>

18
See Scott 1978 for details of the morphophonemic alternations in the Fore data. The Verb ga 'see' fortuitously shares a shape with the allomorph of the INTENSITY morpheme.

19
Ute is a member of the Uto-Aztecan family, which can be illustrated as follows:

```
Uto-Aztecan
    - Tübatulabal
    - Takic
    - Hopi
    - Pimic
    - Tarahahitic
    - Corachol
    - Aztecan
    - Western -- Northern Paiute
        - Mono
        - Koso
    - Numic -- Central -- Shashone
        - Comanche
    - Southern -- Southern Paiute
        - Chemehuevi
```
20
Amharic, a member of Southern Semitic languages, is the national language of Ethiopia. It and its related languages can be schematized as follows:

Afro-Asiatic
  ---
  | Egyptian
  | Cushitic
  | Berber
  | Chad

Afro-

Asiatic
  ---
  | Eastern -- Akkadian
  | Asiatic (Semitic)
  | Western
  | Southern -- Arabic
  | Hebrew
  | Phoenician
  | Canaanite
  | Aramaic

21
Songhai is a Nilo-Saharan language. The language and other related languages can be schematized as follows (reproduced from Greenberg 1963, as cited in Ruhlen 1985.137-39):

Afro-Asiatic
  ---
  | Niger-Kordofanian

African languages --

Nilo-Saharan ---
  | Songhai
  | Saharan
  | Maban
  | Fur
  | Chari-Nile
  | Koman

22
Tongan is a member of the Polynesian languages. The following diagram is Pawley's subgrouping of the Polynesian languages, as repeated in Chung 1978.9:
Polynesian

Tongan

———

Nuclear Polynesian

———

Samoic-Outlier

———

East Polynesian

Tongan

Niuenean

Samoan

Maori

East Futunan

Cook Islands Maori

Ellicean

Penrhyn

Pukapukan

Neo-Tahitian

Kapingamarangi

Tuamotuan

Nukuoro

Rapa

Northern Outliers

Mangarevan

Pileni

Marquesan

Mae

Hawaiian

Mele-Fila

Easter Island

Futuna-Aniwa

West Uvea

Renellese

Tikopia

23

According to Colinder 1965 (as cited in Ruhlen 1985, 112), Yukaghir is related to the Uralic languages, the relationship of which can be schematized as follows (based on Ruhlen 1985.104-13):

Yukaghir

———

Uralic

———

Samoyedic

Uralic

———

Ugric ——— Hungarian

Finno-Ugric

———

Finnish

Ob-Ugric

Finnic ——— Estonian

Lapp

24

Concerning the notion 'occasion' and its importance in the analysis of aspectual notions, see also Spears 1974 for details.

25

For a detailed discussion, see Davis Ms.b.

26

Dowty (1975.584) claims that certain cases with (or
without) the -ing form cannot be explained in terms of temporary characteristics. For instance,

(1) The earth is revolving around the sun at a rate of 365 1/4 days per revolution.

(2) *John was liking chocolate ice cream until the time he ate so much of it that it made him sick.

He suggests that we need to consider three distinct though often overlapping semantic criteria: agency, movement/change and temporariness. For details, see Dowty 1975.

27

The Spanish data from sentence (87) on, unless specified, are all provided by Griselda Enciso, a native of Peru.

28

Hengeveld (1986) has a similar observation. He (1986. 417) states, 'Where both copulas may appear under the same conditions, with adjectival predicates, the difference between them was characterized as an aspectual one. It was argued that estar, if used with an adjectival predicate, is already "filled in" for progressive meaning'. To be more specific, Hengeveld (1986.396) considers that if 'used with ser the property described by the adjectival predicate is presented as an intrinsic or permanent one, if used with estar the property is described as a contingent one.'

29

Booker (1980.114-18) considers that the morpheme -hchi- in Alabama is derived from the Proto form *hchi. She claims that this form is an emphatic element in Proto-Muskogean, and that it still remains as an emphatic marker in many other Muskogean languages. Examples with -hchi- in some Muskogean languages are illustrated below (Booker 1980. 114):

(1) Creek:

a. homp-ak-ii-c hchi
   'Let's eat'

b. stan sip-iko-s hchi
   'He is nowhere around'

(2) Hitchiti:

a. coko-1-ip-icka-laka-s hchi
   'You will have a seat'
b. is-halat-li hchi
   'Seize him'

(3) Mikasuki:
   a. ay-ti-laaka-s hchi
      'There won't be any'
   b. hant-aam-omi-hoo-s hchi
      'Something has happened'

(4) Choctaw:
   a. kata-h-o-s maa mihc-ahiila-h hchi
      'Who would do a thing like that;
       I wonder who can/will do that'
   b. kata-h-o-s maa mihc-ahiila tok hchi
      'Who would have done a thing like that;
       I wonder who was supposed to have done that'

Nevertheless, considering the English glosses given above, we find it difficult to see what Booker suggests is 'emphasis' in these examples. Further study on -hchi- in these languages is needed.

30 For a detailed discussion on the aspectual system -∅ vs. -hchi- vs. -∅, see Davis and Hardy (in prep.).

31 Some linguists consider that Aspect markers can not cooccur. For instance, Bybee (1985.151), in her discussion of Aspect, excludes the elements the semantics of which has nothing to do with the temporal contours of the situation, as we have already mentioned in footnote 4, Chapter One. She considers that, for example, the suffix in Tiwi that means 'to do something while moving about' should not be treated as an Aspect marker not only because of the above-mentioned semantic reason but also because 'it cooccur [emphasis mine, LMH] rather than contrasts with the other aspects of Tiwi'.
Chapter Three

Interaction between Aspect and Other Categories

In this chapter, we will first present several instances showing the interaction between/among Aspect and other systems such as Tense, Voice, ROLE and Mood. We will then show that these correlations exist in language(s) as natural consequences of the interpretation of ASPECT developed in Chapter Two. We will begin by examining some data from Classical Arabic and Russian to show the interaction between Aspect and Tense categories in these two languages.

3.1 Interaction between Aspect and Tense

There are two sets of forms in Classical Arabic ('written Arabic', in Comrie's term) that, as pointed out in Comrie 1976, simultaneously indicate both Aspect and Tense. Consider the examples given below (Comrie 1976.78):

(1) a. Jalasū  加  1 -bābi
they:sat:down(Prf) at the-door
'They sat down at the door'

b.  नाय द्वारा  बिन  वाणी
God he:know(Imprf) about-what you:do(Imprf)
'God knows what you are doing'

Without any overt indication of time reference, the Perfective Verb is glossed with the Past Tense, and the Imperfective with the Present, as shown by the English equivalents in (1a-b). In other words, when Verbs are taken in isolation, the Perfective is interpreted as Past Time, and the Imperfective as Present. However, observe the following
sentence with the temporal Adverb indicating future time
yawma 'l-qiyāmit 'on the Day of Resurrection' (Comrie 1976. 79):

(1) c. Fa 'llāhu taḥkumu bayna -hum yawma 'l-
but God he:judge(Imprf) between-them day the-
qiyāmit
resurrection
'But God will judge between them on the Day of
Resurrection'

Here the Imperfective taḥkumu gives a Future interpretation
'he will judge' instead of a Present reading. Clearly,
sentences (1a-c) indicate the language has Aspect and Tense
interacting with each other.

Also, when additional contextual information manifested
by subordinate clauses is present, the two sets of verbal
forms still designate a combination of Aspect and Tense, but
they signal a combination of Aspect and Relative Tense
instead of Absolute Tense. Examples follow (Comrie 1976. 79):

(2) a. ṭajīżu-ka ṭidā 'bmarrā 'l-
I:come-to:you(Imprf) when it:ripen(Prf) the-
buṣru
unripe:date
'I shall come to you when the unripe date ripens
(shall ripen)'

b. ṭarsala yuḥlimu -hu bi -ṣālika
he:send(Prf) he:inform(Imprf)-him about-this
'He sent (someone) in order to inform him about
this'

It is noted above that the Imperfective form, taken in
isolation, is interpreted as referring to the Present. Yet
in (2a) the Imperfective ṭajīżu 'I come' refers to a FUTURE
TIME with respect to the TIME of the Perfective 'bmarra 'it ripens', which itself designates a FUTURE TIME with respect to the speech situation when it occurs in a subordinate temporal clause with 2idā 'when'. In other words, the TIME reference designated by the Imperfective and Perfective forms in sentence (2a) is a relative TIME reference instead of an absolute one. The Imperfective form indicates relative POSTERIORITY of the EVENT to the TIME of the Perfective form, and the Perfective form then signals relative ANTERIORITY to the Imperfective form. A similar situation is found in sentence (2b) with a purpose clause. As expected, the fulfilment of the purpose expressed by the Imperfective form yuṭlimu 'inform' must bear a relative FUTURE TIME relation to the ACTION designed to lead to that end, here expressed by the Perfective ẓarsala 'send'. To sum up, the Classical Arabic data presented here illustrate a case showing the interaction of the categories of Aspect and Tense.

Another example that also designates a correlation between Aspect and Tense is taken from Russian. The language has two aspectual categories, namely, the Perfective and the Imperfective. Russian also has a Tense opposition between Past and Non-Past, with the latter signalling either PRESENT or FUTURE TIME. While the Imperfective can occur with both Tenses in all TIMES (PAST, PRESENT, and FUTURE), the Perfective is not compatible with the PRESENT TIME of the Non-Past Tense, which encodes both PRESENT and FUTURE
TIMES, but only the FUTURE TIME with the Perfective Aspect.

Consider the following sentences with Intransitive Verb in
(3)-(5) (Milner 1973.632 and also provided by Carrie
Cameron, personal communication) and with Transitive Verb in
(6)-(8) (Babby and Brecht 1975.344):

(3) a. Ya chitala
    I read(Imprf)
    'I was reading'

    b. Ya prochitala
    I read(Prf)
    'I read'

(4) a. Ya chitayu
    I read(Imprf)
    'I am reading'

    b.* (no Present Perfective)

(5) a. Ya budu chitat'
    I be  read(Imprf)
    'I shall be reading'

    b. Ya prochitayu
    I read(Prf)
    'I shall have read; I shall read out'

(6) a. Maša myla    pol
    Maša wash(Imprf) the:floor
    'Maša was washing the floor'

    b. Maša wymyla    pol
    Maša wash(Prf) the:floor
    'Maša washed the floor'

(7) a. Maša moët    pol
    Maša wash(Imprf) the:floor
    'Maša is washing the floor'

    b.* (no Present Perfective)

(8) a. Maša budet myt'    pol
    Maša be wash(Imprf) the:floor
    'Maša will be washing the floor'
b. Maša vymoet  pol
    Maša wash(Prf) the:floor
    'Maša will have washed the floor'

That the language does not allow a Perfective Verb to be in Present Tense also indicates an intersection between Aspect and Tense, although it is different from the interaction found in Classical Arabic.

As illustrated in Classical Arabic and Russian above and also later in Newari (in Section 3.4) and Sherpa (in Section 3.5), it is noticed that Perfective Aspect has a stronger tendency to intersect with Past Tense while the Imperfective Aspect is more likely to correlate with Non-Past Tense (Present or Future), which can be schematized as follows:

```
X-----------------------------X

Aspect: Imperfective          Perfective
Tense: Non-Past               Past
```

Figure 1

We have not found any language that has a converse-extreme correlation or a correlation between the opposite systems without such a positive intersection as the one illustrated in Figure 1. For instance, we have no examples showing that Imperfective Aspect correlates with Past Tense, while Perfective Aspect cannot have such a correlation. This correlation extends to those aspe ctual systems in which the values of DIFFUSE—FOCUSSED are interpreted in a way other than IMPERFECTIVE—PERFECTIVE, so that UNREALIZED, ESSENCE,
REMOTE, etc. will correlate with PRESENT (or Non-Past) TIME while the corresponding REALIZED, ACCIDENCE, IMMEDIATE, etc. will correlate with PAST TIME. As we may expect, the interaction between Aspect and Tense systems mentioned above is not random; there are reasons for such a correlation to which we now turn.

DeLancey in his paper 'Aspect, transitivity and viewpoint' (1982) suggests a viewpoint analysis of Aspect. He considers that an EVENT can be analyzed in terms of Transitivity, Space and Time; that is, an EVENT is perceived as starting from AGENT to PATIENT (Transitivity), from Source to Goal (Space) and from Onset to Termination (Time). He then adds that 'some aspectual distinctions may also be interpreted as viewpoint specifications: in particular that the perfective/imperfective distinction (at least in some languages) represents a distinction between terminal and non-terminal viewpoint'; in other words, he (1982.172-73) considers that 'Perfective views an event from its terminal point' and Imperfective non-terminal. A similar viewpoint analysis of Aspect is shared by Givón, who (1984.276) states that an EVENT is Perfective when 'it has a terminal boundary at the time axis ... (and that) an event is imperfective when no terminal boundary is present at the time axis.' As we perceive it, this approach may, to some extent, help explain the correlation between Aspect and Tense as well as other categories which we will discuss later. When an EVENT
has taken place and is Perfective in the Completive manner, its terminal point is more likely to be a matter of record. Consequently, the most common Tense category associated with the Perfective/Completive is the Past, as we have seen in Classical Arabic and will see in Newari, Sherpa and, as Comrie (1976.72) points out, in a number of African languages. This may also account for the fact that in Russian, the Perfective Verbs, being compatible with the PAST TIME of the Past Tense, cannot occur in the PRESENT TIME of the Non-Past Tense. With the Non-Past Tense, the Perfective Aspect focusses attention upon the completion of the EVENT, an occurrence which, from the perspective of the speech situation is yet to arrive. Hence, a FUTURE TIME implication. On the other hand, when an EVENT is Imperfective, the end point is not set yet. The action of the EVENT can be ongoing at the speech moment, it may take place in the future, or it may occur habitually. In other words, the Imperfective tends to be related to the Non-Past (Present or Future), as we have noted in Classical Arabic and will find in Newari, Sherpa and Georgian.

3.2 Interaction between Aspect and Voice

Let us again consider some data from Russian. First, notice that, according to Babby and Brecht (1975.361), 'Russian has two passive constructions; which one is used is totally dependent on the aspect of the verb. The predicate of an imperfective passive sentence is a finite verb with
the morpheme -SJA; the predicate of a perfective passive sentence is the copula plus the deverbal adjective in -EN-. Observe the following Active-Passive pairs (Babby and Brecht 1975.342):

(9) a. Oleg otkryval kalitku
    Oleg-Nom was:opening gate-Acc
    'Oleg was opening the gate'

    b. Kalitka otkryvalas' Olegom
        gate-Nom was:being:opened Oleg-Instr
        'The gate was being opened by Oleg'

    c. Kalitka byla otkryvania Olegom
        gate-Nom was:being:opened Oleg-Instr

(10)a. Oleg otkryl kalitku
    Oleg-Nom opened gate-Acc
    'Oleg opened the gate'

    b. Kalitka byla otkryta Olegom
        gate-Nom was:opened Oleg-Instr
        'The gate was opened by Oleg'

    c. Kalitka otkrylas' Olegom
        gate-Nom was:opened Oleg-Instr

As illustrated in the above examples, the Passive of an Imperfective Verb is marked by the suffix -sja (or -s) following a vowel, as in [9b]), and the Passive of a Perfective Verb is signalled by -en- (and sometimes -n- or -t-) and the copresence of a form of byt' 'be', as in (10b). On the other hand, as shown in (9c) and (10c), Perfective Verbs do not take -sja/-s to form their Passives and Imperfective Verbs do not take -en/-n/-t-. However, without an explicit expression of AGENT/EXECUTOR in the Instrument case, Perfective Verbs may cooccur with -sja, e.g. (11a) (Babby and Brecht 1975.363) while Imperfective Verbs still cannot
cooccur with -en-, e.g. (11b) (provided by Roy Jones, personal communication):

(11)a. Kalitka otkrylas'
gate-Nom was:opened
'The gate was open'
'The gate was opened'

b. "Kalitka byla otkryvana
gate-Nom was being:opened

The (un-)grammaticality of (11a-b) can probably be accounted for on the basis of the semantics of the two markers -sja and -en-, which is beyond the scope of the present study. Our main concern here, as demonstrated above, is to show, by presenting Russian data, an instance of the interdependence between the Aspect and Voice systems in a language.

That Aspect and Voice correlate with each other is not isolated to Russian; there are some other languages, e.g. Gujarati, that also show such a correlation. Superficially, the contrast between 'Active' and 'Passive' constructions in different languages may be signalled in various ways, either by differences in case markings, variations in word order, presence/absence of certain Auxiliaries, alternations in verbal agreements, or combinations of some of these ways.

As we saw above, Russian is an example of combining the first three. Below, we will notice that Gujarati, an ergative language, illustrates an instance of combining the first and the third. As we can see, linguists frequently argue whether an ergative language has a Passive construction or not. This may arise because some ergative languages
do not have 'ordinary' overt markers or different word order for Passive Voice as, for instance, English does, i.e. be...en and by + Noun as well as the alternation in word order. Take Gujarati for example. Mistry (1976), disagreeing with Cardona (1965), argues that Gujarati does not have Passive constructions because in that language, '(a) the original object is not promoted to subject position, (b) the original object remains object, and (c) the original subject remains subject' (Mistry 1976.261). However, if we can take Voice categories as designating semantic FOCUS (or the perspective upon an utterance—either from the point of view of AGENT, PATIENT or others), then any grammatical device, either a Passive-like construction or variations in verbal agreement, may reflect Voice alternations. The essential grammatical component is the selection of one PARTICIPANT to the exclusion of others. It is immaterial how this selection is achieved.

Let us now consider some examples from Gujarati. As stated in DeLancey 1982.174, Gujarati has Past Tense Verbs showing the agreement in gender with a Noun Phrase: 'imperfectives agree according to the accusative pattern, perfectives according to the ergative.' Observe the following examples (Mistry 1976.243 & 245):

(12)a. Ramesh aw -y -o
    Ramesh(M) come-Prf-M
    'Ramesh came'
b. Sudha aw -y -i
   Sudha(F) come-Prf-F
   'Sudha came'

c. BELEk aw -y -ʊ
   child(N) come-Prf-N
   'A child came'

(13)a. Ramesh aw -t -o hE -t -o
       Ramesh(M) come-Imprf-M Aux-Imprf-M
       'Ramesh was coming'

b. Sudha aw -t -i hE -t -i
   Sudha(F) come-Imprf-F Aux-Imprf-F
   'Sudha was coming'

c. BELEk aw -t -ʊ hE -t -ʊ
   child(N) come-Imprf-N Aux-Imprf-N
   'The child was coming'

(14)a. Ramesh pen khErid-t -o hE -t -o
       Ramesh(M) pen(F) buy -Imprf-M Aux-Imprf-M
       'Ramesh was buying the pen'

b. Ramesh -e pen khErid-y -i
   Ramesh(M)-Erg pen(F) buy -Prf-F
   'Ramesh bought the pen'

Each sentence in (12) with the Intransitive Verb aw 'come' and the Perfective Aspect marker -y designates a PERFECTIVE EVENT, and the Verb shows the gender agreement with AGENT/EXECUTOR: -o in (12a) agrees with the Masculine AGENT Ramesh, -i in (12b) with the Feminine AGENT Sudha and -ʊ in (12c) with the Neuter AGENT beLEk 'child'. Such a gender agreement with the AGENT/EXECUTOR also appears in sentences (13a-c), each of which has the Intransitive Verb aw 'come' designating an IMPERFECTIVE EVENT. However, this agreement does not always appear in sentences with Transitive Verbs; it only occurs when the EVENTS expressed by Transitive Verbs designate Imperfective activities. For instance, sentence
(14a) expresses an IMPERFECTIVE ACTION and the Verb shows the gender agreement with the Masculine AGENT Ramesh, and hence the suffix -o. On the other hand, when the EVENT expressed by a Transitive Verb is a PERFECTIVE one, as in (14b), the Verb then indicates the agreement with the PATIENT; in this case, pen 'pen'--Feminine--and thus -i. Only in this last case does the AGENT PARTICIPANT get marked with the Ergative case marker -e; in the rest, it is unmarked. DeLancey (1982.175) is right in pointing out that in Gujarati, neither 'case marking nor verb agreement consistently reflect semantic role.' However, Gujarati does designate an example of split ergativity which is determined by the PERFECTIVITY of EVENTS in question. It is clear that the Aspect and Voice/FOCUS (signalled by verbal agreement) categories of the language interact with each other to yield the correlation illustrated in Figure 2:

\[
\begin{align*}
\text{Aspect: Imperfective} & \quad \text{Perfective} \\
\text{Voice/: AGENT-/EXECUTOR-} & \quad \text{PATIENT-} \\
\text{FOCUS} & \quad \text{Focus}
\end{align*}
\]

Figure 2

Recall DeLancey's viewpoint analysis stated earlier, particularly his points that an EVENT is perceived as starting from AGENT to PATIENT and that the Imperfective Aspect views an EVENT from its non-terminal point while the Perfective selects the terminal point. Accordingly, when an
EVENT is IMPERFECTIVE, the AGENT/EXECUTOR PARTICIPANT is selected to carry one's attention and hence FOCUS, as signalled for instance by the verbal gender agreement in Gujarati. On the other hand, in a PERFECTIVE EVENT, it is the PATIENT (the terminal point) that is chosen to be the FOCUS, which recalls Givón's (1984.157) remark, 'The more completed an event is, the more likely it is that the patient in fact registers to the full effects of the action.' In this case, it is often expected that the AGENT is no longer active in the EVENT and carries no attention. Such an interpretation may help explain why in Russian, a Passive sentence with the Verb expressing a PERFECTIVE EVENT does not allow the copresence of the Noun manifesting the AGENT/EXECUTOR, as given in sentence (10c). Compare that sentence with the grammatical sentence (11a) having no AGENT expressed. However, this does not seem to be the case in Gujarati. As mentioned above, the Ergative case marker is attached to the AGENT PARTICIPANT only when the EVENT expressed by a Transitive Verb is PERFECTIVE. Conceptually, a Transitive Verb manifests a better EVENT than an Intransitive Verb; moreover, a Perfective Transitive Verb designates an even better EVENT than an Imperfective Transitive one (recall Hopper and Thompson's Transitivity Hypothesis [1980]). Consequently, the PARTICIPANTS in a PERFECTIVE Transitive EVENT represent fully-involved PARTICIPANTS, i.e. a true AGENT and a true PATIENT. If this is the case,
the Ergative case marking in Gujarati can be perceived as signalling a better AGENT ROLE than an unmarked (i.e. Nomina-
tive case) AGENT PARTICIPANT. In sum, Gujarati presents
an instance in which FOCUS is indicated by the verbal/gender
agreement and a true, better AGENT PARTICIPANT (ROLE), the
Ergative case marking, and the language shows an interaction
among the categories of Aspect, Voice/FOCUS, and ROLE, the
relationship of which can be illustrated as follows (with
the grammatical marking stated within parentheses):

\[
x-----------------------------x
\]

Aspect: Imperfective          Perfective
Voice : AGENT-/EXECUTOR-
       Focus               PATIENT-
       (gender agreement) Focus
ROLE : less true
       PARTICIPANT
       (Nominative)         true
       PARTICIPANT
       (Ergative)

Figure 3

Below, we will examine another language--Tongan--that illus-
trates an even clearer example of the association between
Aspect and ROLE systems.

3.3 Interaction between Aspect and ROLE

Tongan, among some other Austronesian languages, pre-
sents a different correlation between systems. Let us first
consider the examples below (Tchekhoff 1981.40):

(15)a. 'e mohe -g 'a Sione
     Fut sleep-      John
     'John will go to sleep'
b. 'e mohe -'i 'e Sione 'a e 'aho kakato
   Put sleep- John the whole:day
   'John will sleep the whole day'

(16)a. na'e fa'ele'a -Ø 'a Mele
   Past give:birth- Mary
   'Mary gave birth'

b. na'e fa'ele'a -'i 'e Mele 'a Fifita
   Past give:birth- Mary Fifita
   'Mary gave birth to Fifita'

Intransitive Verbs like mohe 'sleep' and fa'ele 'give birth'
without suffix -'i have their PARTICIPANT/Noun marked by 'a,
as shown in (15a) and (16a). When the suffix -'i and a
grammatical Object are present, e.g. (15b) and (16b), the
Noun manifesting the PARTICIPANT that carries out the EVENT
in question will be preceded by the marking 'e instead of
' a. Consequently, the suffix -'i is treated as a Transitive
suffix. However, compare the following sentences (Tchekhoff
1973.609-10):

(17)a. na'e fana -Ø 'e Sione 'a e manupuna
   Past shoot:at- John the birds
   'John shot at the birds'

b. na'e fana -'i 'e Sione 'a e manupuna
   Past shoot:at- John the birds
   'John shot the birds (and succeeded)'

Both (17a) and (17b) have two PARTICIPANTS/Nouns marked by
' e and ' a respectively. It is clear that the presence of
the suffix -'i does not make the Verb fana Transitive and
that it is inadequate to treat -'i as a 'transitivizer'.
Also, examine the following sentences without an expressed
AGENT (Tchekhoff 1973.609):
(17c) na'e fana  -∅ 'a e  manupuna
   Past shoot:at-     the birds
   'The birds were shot at'

Considering the English gloss of (17c), one may interpret
the absence of the verbal suffix -'i in (17c) as a marker of
indicating the transform from the Active to Passive Voice
(cf. Lynch 1969 & 1972). However, compare sentence (17c)
with the following (Tchekhoff 1973.618, fn.8):

(18) na'e fana  -∅ 'a Mele
   Past shoot:at-     Mary
   'Mary shot'
   'Mary was shot'

As we may note, it is the nature of the PARTICIPANT, if
there is only one in an utterance marked by 'a, that deter-
mines whether the PARTICIPANT in point is an AGENT/EXECUTOR
or PATIENT, not the presence/absence of the verbal suffix
-‘i. For instance, since 'the birds' in (17c) normally do
not shoot and cannot serve as AGENT/EXECUTOR, there is only
one interpretation that can be given, i.e. the PARTICIPANT
'the birds' is PATIENT, whereas 'Mary' in (18) potentially
can be either AGENT/EXECUTOR or PATIENT, and hence two
readings. Moreover, as noted by Tchekhoff (1973.611-14),
the verbal semantics sometimes determines the relationship
of a PARTICIPANT to an EVENT. Consider (Tchekhoff 1973.611-
16 and Tchekhoff 1981.42):

(19)a. 'oku 'ilo-∅ 'a Mele
    Pres find-     Mary
    'Mary finds'

b. 'oku 'ofa-∅ 'a Sione
    Pres love-     John
    'John is a loving person'
c. 'oku 'uma-ø 'a Sione mo Mele
   Pres kiss- John and Mary
   'John and Mary kiss'

     d. 'e mohe -ø 'a Sione
        Fut sleep- John
        'John will sleep'

(20)a. na'e 'ave -ø 'a Mele
     Past bring- Mary
     'Mary was brought'

     b. na'e 'ave -i 'a Mele
        Past bring- Mary
        'Mary was brought'

As indicated by the English glosses in (19a-d), the PARTICI-
PANT discussed in each sentence is not PATIENT, even though
less AGENT-/EXECUTOR-like than the PARTICIPANT Sione in
(17a) or Mele in (18) when interpreted with the first
reading. On the other hand, Verbs like 'ave 'bring' in
(20a-b) always have the PARTICIPANT marked by 'a serving as
PATIENT, with or without the verbal suffix -i. 'Mary
brings' and 'Mary brought' are not possible glosses of the
sentences (20a-b). Evidently, the semantics of Verbs in
these cases plays a role in specifying the PARTICIPANT's
relationship to an EVENT and 'a does not designate a speci-
fic ROLE in an EVENT--it does not mark either AGENT/EXECUTOR
or PATIENT.

With respect to the nature of the suffix -i, Tchekhoff
(1973) provides us with a plausible interpretation. Accor-
ding to her, the suffix -i is an aspectual marker--the
unmarked Verb in Tongan designates a VIRTUAL/Neutral EVENT
while the suffix -i indicates a FACTUAL Aspect. Tchekhoff
(1981.33) adds, 'with an -'i perfective suffix, the verbal operation is more thorough, more successful than without it.' As we have noted, in sentence (17a) above, the Verb fana 'shoot at' is in the basic form signalling a VIRTUAL, UNSUCCESSFUL ACTION while sentence (17b) with the Verb suffixed by -'i expresses a SUCCESSFUL one. Such a treatment in terms of the VIRTUAL--FACTUAL opposition in Tongan as suggested by Tchekhoff is similar to our analysis of the Mokilese aspeckual system posited in Section 2.2, which is characterized in terms of the notion REALIZATION (which implements the more fundamental principle of the DIFFUSE--FOCUSSED opposition). We do not attempt to give a detailed account of the aspeckual system in Tongan here but simply present a comparison of the aspeckual systems in these two languages named:

<table>
<thead>
<tr>
<th>unmarked Verb</th>
<th>suffixed Verb</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X-----------------------x</td>
</tr>
</tbody>
</table>

Mokilese: DIFFUSE:  
UNSUCCESSFUL  

Tongan: VIRTUAL  
SUCCESSFUL  
FACTUAL  

Figure 4

Recognizing that the suffix -'i in Tongan signals the equivalent of a SUCCESSFUL/REALIZED EVENT, we now briefly discuss the prenominal markings 'a, 'e and 'i. Observe the following sentences (Tchekhoff 1981.11, 14 & 43):

(21)a. na'e lea -∅ 'a e tamasi'i  
Past speak- the child  
'The child spoke'
b. na'e lea -Ø 'a e tamasi'i i he fenine'
   Past speak- the child the woman
   'The child spoke to the woman'

c. na'e lea -'i 'e Mele 'a Sione
   Past speak- Mary John
   'Mary scolded John'

The marking that has not yet been discussed is 'i in (21b).
As Tchekhoff (1981.13) characterizes it, 'i precedes a 'circumstantial' Noun which manifests an Object not determined
by the semantics of the Verb; it is used for signalling a
peripheral PARTICIPANT, such as direction (e.g. [21b]),
location (e.g. [22a]), time (e.g. [22b]), cause (e.g. [22c])
and instrument (e.g. [22d]) (Chung 1978.26, 33 & 52 and
Tchekhoff 1981.13):

   (22)a. na'a ku 'i Fisi
       Past I Fiji
       'I was in Fiji'

   b. te mau o atu 'apo 'i he hongofulu
       we go-Pl away toght the ten
       'We are coming tonight at ten'

   c. 'oku fu'u hela'ia 'a 'Alani 'i he ngaue
       Pres very tired Alan the work
       'Alan is very tired because of work'

   d. na'e lavea 'a e tangata 'i he hele
       Past hurt the man the knife
       'The man was hurt by the knife'

As the examples in (21b) and (22a-d) show, the PARTICIPANT
marked by 'i is less involved/affected in an EVENT. It is
less CENTRAL to EVENT, which correlates with its potential
absence from (21a) without altering the meaning of the Verb
lea 'speak'. However, when the EVENT is FACTUAL/SUCCESSFUL
signalled by -'i, we note that the 'true' PATIENT
PARTICIPANT is present, e.g. Sione in (21c), and that these nominal markings covary along with the presence of the verbal suffix -'i. As expected, the EVENT manifested by the same Verb lea 'speak' is a better, more typical example of EVENT—the semantic shift of the Verb lea from 'speak' to 'scold', and the two PARTICIPANTS with the AGENT more forceful/active and the PATIENT more affected (cf. Hopper and Thompson's Transitivity Hypothesis [1980]). Furthermore, as noticed above, the AGENT/EXECUTOR PARTICIPANT Mele in (21c) is marked by 'e and the PATIENT Sione is marked by 'a while the AGENT/EXECUTOR tamasi'i 'child' in (21b) is marked by 'a, which can be summarized as follows:

\[
\begin{array}{ccc}
\text{AGENT/EXECUTOR} & \text{PATIENT} \\
\text{Intransitive} & \text{'a} \\
\text{Transitive} & \text{'e} & \text{'a} \\
\end{array}
\]

\text{Figure 5}

In addition, consider sentences (17a-b) (repeated below):

\begin{align*}
\text{(17)a. na'e fana } & \text{-'e Sione 'a e manupuna} \\
\text{Past shoot:at- } & \text{John the birds} \\
\text{'John shot at the birds'} \\
\text{(17)b. na'e fana } & \text{-'i e Sione 'a e manupuna} \\
\text{Past shoot:at- } & \text{John the birds} \\
\text{'John shot the birds (and succeeded)'}
\end{align*}

The contrast between (17a) and (17b) as indicated by the English glosses, designates that the presence of 'i, as pointed out by Davis and Hardy (Ms.32), 'not only marks Perfective [i.e. FOCUSED, LMH] aspect; it also has the effect of increasing the intensity of the performance of the
EXECUTOR ... and also the affectedness of the EXPERIENCER'.
To sum up, we agree with Davis and Hardy (Ms.33-34) and consider that an 'e' marked PARTICIPANT, particularly the one in a FOCUSED (or Tchekhoff's FACTUAL) EVENT marked by the verbal suffix -'i', is more CENTRAL to EVENT than an 'a' marked one, either an EXECUTOR or a PATIENT PARTICIPANT (but cf. Tchekhoff 1981.17), both of which are more CENTRAL than an 'i' marked PARTICIPANT. The following diagram shows such a relationship among PARTICIPANTS, ASPECT and EVENT:

![Diagram](image)

Figure 6

The discussion presented so far indicates that, like Gujarati, Tongan illustrates an instance of the interaction between the systems of Aspect and ROLE. To be more specific, in Tongan, the FACTUAL/FOCUSED EVENT (as marked by the verbal suffix -'i') requires its PARTICIPANTS to be fully engaged in their ROLES (but not vice versa), here the AGENT (/EXECUTOR) and PATIENT, signalled by case markings 'e' and 'a' respectively. In other words, the AGENT and PATIENT in a FACTUAL/PERFECTIVE EVENT illustrate a complete 'INVOLVEMENT' in the EVENT, which in turn makes their presence in an utterance compulsory.

The correlation like the one presented above is not
unique to Tongan; other Austronesian languages such as Samoan also illustrate a similar relationship between Aspect and ROLE (but cf. Milner 1973), which will not be further investigated here.

3.4 Interaction among Aspect, Tense and ROLE

Next, consider another ergative language, Newari, which shows a more complicated correlation among the categories of Aspect, Tense and ROLE. In that language, as we will see in some examples below, the Perfective Aspect represents a PAST TIME and the Imperfective Aspect a Non-Past, either PRESENT or FUTURE. Moreover, whether a Verb is marked with the Perfective Aspect or with the Imperfective Aspect (either in Present Tense and thus Progressive Aspect, or in Future Tense) determines which case marking pattern a Noun should have. For example, when a Verb like 'sing' with its cognate Object 'song' is suffixed with a Perfective Aspect marker, the AGENT/Subject must be marked with an Ergative case, e.g. (23a). When the Verb occurs in the Progressive Aspect, the AGENT/Subject follows a Nominative(/Absolutive) case marking pattern, e.g. (23b); and when it appears in a Future Tense, the AGENT/Subject can be present with either Ergative or Nominative(/Absolutive) case marker, e.g. (23c). These examples are from Givón 1984.155 with some modification in transcription:
(23)a. Wō mānu-nā mē ha -la
   the man -Erg song sing-Prf
   'The man sang'
   'Lit. The man sang a song'

b. Wō mānu-∅ mē ha -yi cō-gu du
   the man -Abs song sing-Imprf be-Nom be
   'The man is singing'

   11

c. Wō mānu(-∅ /-nā) mē ha -yi
   the man (-Abs/-Erg) song sing-Imprf
   'The man will sing'

The correlation among these three systems in question can be illustrated as follows:

x-------------------x

<table>
<thead>
<tr>
<th>Aspect: Imperfective</th>
<th>Perfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense: Non-Past</td>
<td>Past</td>
</tr>
<tr>
<td>ROLE : Nominative</td>
<td>Ergative</td>
</tr>
</tbody>
</table>

Figure 7

Nevertheless, not all Verbs have their Nouns marked in the same way as Verbs like 'sing' do. Differences in Verb types and aspectual-tensal variations explain the choice of differing case marking patterns, which in turn manifest the ROLE relationship in the language. In terms of a verbal property 'kinesis', Transitive Verbs like ha 'sing', tō 'drink' and tājya 'break' can be characterized as follows: while Verbs like 'sing' indicate less kinetic activities, Verbs like 'drink' designate more kinetic EVENTS, and Verbs like 'break' even more. Above, we have seen what case marking pattern is occasioned by aspectual variation of Verbs of the 'sing'-type. When sentences have Verbs such as 'drink', which manifest more kinetic, more active EVENTS and
which take a non-cognate Object, the Ergative pattern is obligatory in the Perfective/Past, and optional in both the Progressive/Present and Future. Examples follow (Givón 1984.155-56):

(24)a. Wō manu-nā (wō) lā tō -na
the man -Erg the water drink-Prf
'The man drank (the) water'

b. Wō manu(-Ø /-nā) wō lā tō -ni cō-gu du
the man (-Abs/-Erg) the water drink-Imprf be-Nom be
'The man is drinking the water'

c. Wō manu(-Ø /-nā) wō lā tō -ni
the man (-Abs/-Erg) the water drink-Imprf
'The man will drink the water'

As for Verbs like 'break', the Ergative case is obligatorily used in all three major Tense-Aspect patterns (Givón 1984.156):

(25)a. Wō manu-nā (wō) jhya tājya-ta
the man -Erg the window break-Prf
'The man broke the window'

b. Wō manu-nā (wō) jhya tājya-yi cō-gu du
the man -Erg the window break-Imprf be-Nom be
'The man is breaking the/a window'

c. Wō manu-nā (wō) jhya tājya-yi
the man -Erg the window break-Imprf
'The man will break the/a window'

As can be seen in sentences (23)-(25), a more kinetic EVENT like 'drink' requires a more involved AGENT, and hence the presence of the Ergative case marking in all different Tense-Aspect constructions. In sum, Newari presents a correlation among Aspect, Tense and ROLE systems with verbal semantics 'kinesis' interacting.
3.5 Interaction among Aspect, Tense, ROLE and Mood

The next language we examine is Sherpa, which illustrates an interaction among Aspect, Tense, ROLE and Mood systems. As stated by Givón (1984:306), Sherpa has a Perfective Aspect 'which covers the past, and [an] imperfective, which covers the habitual, present and future.' Moreover, like Newari, this language exhibits split ergativity which is aspectually conditioned: 'transitive clauses exhibit ergative-absolutive morphology only in the perfective; otherwise they exhibit nominative-accusative morphology' (Givón 1984:306). Below are examples with the Intransitive Verb *cam* 'dance' (Givón 1984:157) and the Transitive Verb *ky* 'do' (Givón 1984:307):

(26)a. ti mi -ti -Ø cam -sung
   the man-Def-Nom dance-Prf
   'The man danced'

   b. ti mi -ti -Ø cam -ki -wi
   the man-Def-Nom dance-Aux-Imprf
   'The man is dancing'

(27)a. ti-ɡi laɡá ky-aa -no
   he-Erg work do-Aux-Prf
   'He worked'

   b. ti-Ø laɡá ki-yin way
   he-Nom work do-Imprf Aux
   'He is working'

   c. ti-Ø laɡá ki-wi
   he-Nom work do-Imprf
   'He will work'

The Aspect, Tense and ROLE correlation in Sherpa is similar to the one in Newari as illustrated in Figure 7 (reproduced here):
Further, the language uses certain Auxiliaries or verbal suffixes to illustrate Mood; that is, the evidential contrast, which can be found in both the Perfective/Past and Progressive/Present, but not in the Imperfective/Future.

Examples follow (Givón 1984.308-09):

(28)a. ti-qi cenyi caaq -sung
   he-Erg cup break-Prf
   'He broke the cup'
   [and I have direct evidence]

b. ti-qi cenyi caaq -no
   he-Erg cup break-Prf
   'He broke the cup'
   [and I have only indirect/hearsay evidence]

(29)a. ti-ø lağa ki-yin no
   he-Nom work do-Imprf Aux
   'He is working'
   [and I have direct evidence]

b. ti-ø lağa ki-yin way
   he-Nom work do-Imprf Aux
   'He is working'
   [and I have only indirect/hearsay evidence]

(30)ti-ø lağa ki-wi
   he-Nom work do-Imprf
   'He will work'
   [impossible to have evidentiary support]

Such an Aspect-Tense-Mood correlation as presented in Sherpa is not accidental. When an EVENT has happened or is on-going, it is more certain and concrete—Realis Mood, as we may characterize it. When an EVENT has not taken place,
there is no direct evidence, and hence the Evidential (or Irrealis) Mood. To sum up, on the basis of the above examples, we notice that in Sherpa, the aspectual system interacts with the Tense, ROLE and Mood categories which can be summarized as follows:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Imperfective</th>
<th>Progressive</th>
<th>Perfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense</td>
<td>Future</td>
<td>Present</td>
<td>Past</td>
</tr>
<tr>
<td>ROLE</td>
<td>Nominative</td>
<td></td>
<td>Ergative</td>
</tr>
<tr>
<td>Mood</td>
<td>Irrealis</td>
<td>Realis</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9

3.6 The interaction among Aspect, Tense, Voice, ROLE and Mood

We will see shortly that Georgian, a South Caucasian language, presents a very complicated association among the above-mentioned systems. As pointed out by Harris (1981), there are four types of Verbs in the language. Like in Newari, different types of Verbs do not manifest the same interaction between Aspect and ROLE systems. Due to limited space, we will limit ourselves to one Verb type which illustrates a complete list of case markings, as we will see below.

DeLancey (1982.175) and many others indicate that Georgian has three aspectual-tensal-modal categories, i.e. Imperfect, Aorist and Perfect. As Harris (1981.46 & 118)
points out and as we will see below, the Imperfect covers the Present and Future Tense, and designates Incompletive Aspect and Indicative Mood; the Aorist represents Past Tense, Completive Aspect and Indicative Mood; and the Perfect Aspect indicates an existing state which can be inferred to have resulted from a Past EVENT, i.e. Evidential Mood. The language also has several case marking patterns, three of which concern us here; namely, Nominative, Ergative and Dative. Furthermore, DeLancey (1982.178) notes that the language, like Newari and Sherpa, has aspectually split ergativity. It exhibits an aspectually conditioned three-way split (instead of a normal two-way contrast) in nominal case markings and verbal agreement patterns. For the purpose of the present discussion, we will limit ourselves to the examples showing that the variations in case markings and verbal agreement patterns are aspectually conditioned. First, let us examine the case marking patterns in the language. Observe the sentences below with Intransitive 17 Verbs (Harris 1981.37-40 & 135):

(31)a. Nino-Ø Ø-amtknar-eb-s  
    Nino-Nom 3-yawn - 3sg.pres/fut  
    'Nino yawns'

b. Nino-Ø da-Ø-amtknar-a  
    Nino-Erg - 3-yawn - 3sg.aorist  
    'Nino yawned'

(32)a. Merab-ı Ø-amtknar-eb-s  
    Merab-Nom 3-yawn - 3sg.pres/fut  
    'Merab is yawning'
It is evident that the choice of the case marking patterns here does not depend on verbal Transitivity since each of the examples above has only one Noun (Phrase) manifesting one PARTICIPANT. It is the aspectual alternations that account for the differences in case marking. As indicated in the English glosses, (31a) and (32a) refer to IMPERFECTIVE EVENTS and the Nouns are therefore marked with the Nominative case -i (after a consonant)/-∅ (after a vowel). Sentence (31b), with the Aorist Tense-Aspect, designates a Past completed ACTION, and the Noun therefore has the Ergative case marker -m(a). Sentence (32b), with the Perfect Tense-Aspect, indicates a Resultant situation and has 'a usual evidentiary interpretation' (DeLancey 1982.125); thus the Noun is marked with the Dative case -s, different from that in (31a), (31b) or (32a). Clearly, there is a correlation between Tense-Aspect and case markings in the language, which can be summarized as follows:

<table>
<thead>
<tr>
<th>Tense-Aspect</th>
<th>AGENT/EXECUTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>imperfect</td>
<td>nominative</td>
</tr>
<tr>
<td>aorist</td>
<td>ergative</td>
</tr>
<tr>
<td>perfect</td>
<td>dative</td>
</tr>
</tbody>
</table>

Figure 10

Now, examine some sentences with Transitive Verbs (Boeder 1967, as cited in DeLancey 1982.176):
(33)a. Kac-eb-\_\_  ꢈ-ꢈ  -\_\_cer  -\_\_en
man-Pl-Nom  3-3Sg.Obj.Pres/Fut-write-3Pl.Pres/Fut  
ceril -\_\_g
letter-Dat
'The men are writing a letter'

b. Kac-eb-ma  da-ꢈ-ꢈ  -\_\_cer  -\_\_es
man-Pl-Erg  -3-3Sg Obj.Aorist-write-3Pl.Aorist  
ceril -\_\_i
letter-\_\_Nom
'The men wrote a letter'

c. Kac-eb-\_\_g  u  -\_\_cer  -\_\_i-a  -\_\_t
man-Pl-Dat  3.Perfect-write- -3Sg Obj.Perfect-P1  
ceril -\_\_i
letter-\_\_Nom
'The men have (apparently) written a letter'

As illustrated in the above examples, sentence (33a), expressing an IMPERFECTIVE activity, has the AGENT marked with the Nominative case -\_\_i and the PATIENT with Dative -\_\_g; (33b) with the Aorist Tense-Aspect has the AGENT taking the Ergative case marker -ma and the PATIENT Nominative -\_\_i; and (33c), with the Perfect Tense-Aspect, has the AGENT indicated by the Dative case marking -\_\_g and the PATIENT Nominative -\_\_i. More examples are given below (Harris 1981.1):

(34)a. Glex  -\_\_i  ꢈ-ꢈ  -\_\_tesav-\_\_s
peasant-\_\_Nom  3-3Sg.Obj.Pres/Fut-sow -3Sg.Pres/Fut  
simind-\_\_g
corn  -\_\_Dat
'The peasant is sowing corn'

b. Glex  -\_\_ma  da-ꢈ-ꢈ  -\_\_tes-a
peasant-Erg  -3-3Sg Obj.Aorist-sow-3Sg.Aorist  
simind-\_\_i
corn  -\_\_Nom
'The peasant sowed corn'
c. Glex -g da-u -tesav-s
peasant-Dat -3.Perfect-sow -3Sg.Obj.Perfect

simind-i
corn -Nom
'The peasant has sown corn'

The correlation between Aspect and nominal case markings discussed here can be illustrated as follows:

<table>
<thead>
<tr>
<th>Tense-Aspect</th>
<th>AGENT</th>
<th>PATIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperfect</td>
<td>Nominative -i</td>
<td>Dative -g</td>
</tr>
<tr>
<td>Aorist</td>
<td>Ergative -ma</td>
<td>Nominative -i</td>
</tr>
<tr>
<td>Perfect</td>
<td>Dative -s</td>
<td>Nominative -i</td>
</tr>
</tbody>
</table>

**Figure 11**

With regard to verbal agreement, the above data confirm what DeLancey (1982.176) points out when analyzing the verbal morphology of Old Georgian. That is, like Old Georgian, Modern Georgian has two sets of verbal agreement markers.

Set I markers agree with the AGENT in the Imperfect sentences, e.g. ꞏ...en (3P1) in (33a) and ꞏ...s (3Sg) in (34a), and also in sentences with the Aorist Tense-Aspect, e.g. ꞏ...es (3P1) in (33b) and ꞏ...a (3Sg) in (34b); and in the Perfect sentences, they agree with the Nominative PATIENT, e.g. -a (3Sg) in (33c) and -s (3Sg) in (34c). Set II markers agree with the Dative Noun Phrase in the Imperfect and Perfect sentences—i.e. with the PATIENT in the Imperfect, e.g. ꞏ (3Sg) in (33a) and (34a), and the AGENT in the Perfect, e.g. ꞏ...t (3P1) in (33c) and ꞏ... ꞏ (3Sg) in (34c)—and with the Nominative PATIENT in the Aorist, e.g.
-∅ (33b) in (33b) and (34b). Figure 12 summarizes this:

<table>
<thead>
<tr>
<th></th>
<th>Imperfect</th>
<th>Aorist</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set I</td>
<td>AGENT</td>
<td>AGENT</td>
<td>PATIENT</td>
</tr>
<tr>
<td>Set II</td>
<td>PATIENT</td>
<td>PATIENT</td>
<td>AGENT</td>
</tr>
</tbody>
</table>

Figure 12

Like in Gujarati but not in the same way, the verbal agreement in Georgian reflects a correlation between Aspect and Voice/FOCUS categories.

Concerning the interaction between Aspect and Mood, we have noticed that, in the English glosses of sentences (31)-(34), both Imperfect and Aorist may represent Indicative Mood, while Perfect indicates Evidential Mood. Such an Indicative-Evidential Mood contrast covarying with Imperfective/Aorist vs. Perfect Aspect can be accounted for. As can be expected, when an EVENT has taken place or is happening, it is perceived and hence more factual and concrete, and thus the Indicative Mood. On the other hand, when there is only the RESULTANT STATE of a PERFECTIVE EVENT to be observed, the EVENT that produced the STATE in question may be so REMOTE that it can only be inferred or reported by someone else, and thus Evidential Mood. In conclusion, Georgian serves as an example illustrating that aspectual systems may interact with the categories of Tense, Voice, ROLE and Mood.

3.7 More examples on interaction between Aspect and Mood
That aspectual systems may intersect with Mood categories is not peculiar to Sherpa and Georgian; we can find such a correlation present in some other languages. Furthermore, there are other types of Aspect-Mood interaction in addition to the one mentioned above. Russian presents an interesting instance showing that the Imperfective—Perfective opposition also designates a contrast of several Mood-like qualities. Forsyth (1970), as cited in Wallace 1979, points out that

1) The perfective can indicate an achieved result; the imperfective, an unsuccessful attempt (pp.71-3). 2) The negated perfective can denote the nonachievement of a result; the negated imperfective, unwillingness or refusal to perform an action, or inability to perform an action (p.109). 3) The common use of a negated imperfective verb to deny an affirmative perfective verb connotes a "general feeling of dissociation from the concrete reality of an action performed and completed" and a movement away from "the realm of precision and concrete reality into that of vagueness and unreality" (p.112). 4) The imperfective imperative is a "more attenuated" command than the perfective imperative (p.218). 5) In the past tense, at any rate, there is a noticeable correlation between perfective and transitive, imperfective and intransitive (p.91).

Also, recall our discussion of the aspectual systems of Jakarta Malay and Alabama, i.e. ɣ- vs. ɬ- and -ø vs. -hchi- vs. -q respectively. In Jakarta Malay, as discussed in Chapter One, the verbal prefix ɣ- indicates a GENERAL (IMPERFECTIVE/DIFFUSE) ASPECT and ɬ-, a SPECIFIC (PERFECTIVE/FOCUSSED) ASPECT. The same formal contrast can also indicate the semantic opposition between FAILURE/ATTEMPT and
SUCCESS, and between doubtful intention and certain execution. Some examples illustrating such contrasts are repeated here:

(35)a. ali нE-bEli buku
    Ali -buy book
    'Ali is a book buyer'

    b. ali ø-bEli buku
    Ali -buy book
    'Ali bought a book'

(36)a. ulEr н-0sOIr guA
    snake -bite me
    'A snake tried to bite me'

    b. ulEr ø-s0sOIr guA
    snake -bite me
    'A snake bit me'

(37)a. guA mau н-ajak diA ni malEm
    I going:to -invite her this night
    'I was going to invite her (out for a date) tonight'

    b. guA mau ø-ajak bapa?
    I going:to -invite father
    'I'm going to invite Father (to play chess)'

The coincidence of the DIFFUSE/IMPERFECTIVE--FOCUSSED/PERFECTIVE aspectual contrast with the UNREALIZED attempt--REALIZED performance (in Jakarta Malay, as well as in Russian mentioned above) within a single grammatical opposition can be schematized as follows:

```
x--------------------------------x
н-                              ø-

Aspect: DIFFUSE/IMPERFECTIVE   FOCUSSED/PERFECTIVE
Mood : UNREALIZED              REALIZED
```

Figure 13

As for the aspectual opposition in Alabama, i.e. the
NONINTERACTIVE—INTERACTIVE (or REMOTE—IMMEDIATE) contrast indicated by -∅ vs. -hchi- vs. -o, we noticed earlier that the choice of these forms is determined not by the PERFECTIVITY of the EVENT in question but the speaker's imposition of himself upon the situation he is depicting. Recall some examples given in Chapter Two (repeated below):

(38)a. roy-ka -ya hissi-koloffi-∅
    Roy-Foreign-Top hair -cut -
    'Roy is a barber'

b. roy-ka -ya hissi-koloffi-hchi
    Roy-Foreign-Top hair -cut -
    'Roy is cutting hair'

c. roy-ka -ya hissi-koloff-o
    Roy-Foreign-Top hair -cut -
    'Roy has (just) cut hair'

With ACTION Verbs like hissi-koloffi 'cut hair', the opposition marked by -∅, -hchi- and -o tends to be interpreted as a contrast between IMPERFECTIVE and PERFECTIVE, as indicated in the English glosses of (38a-c). However, with STATE-like EVENTS such as taat '(be) father' in sentences (39a-c) below (reproduced from Chapter Two), the semantic contrast among -∅, -hchi- and -o then appears to be more a Mood-like property:

(39)a. roy-ka -ya an-taat -∅
    Roy-Foreign-Top my-father-
    'Roy is my father'

b. roy-ka -ya an-taat -hchi
    Roy-Foreign-Top my-father-
    'Roy is becoming my (step)father'
[During the ceremony]
c. roy-ka -ya an-taat -o
Roy-Foreign-Top my-father-
'Roy became my (step)father'
[Saying right at the end of the ceremony]

(39a) with an unsuffixed Predicate an-taat-Ø 'be my father' describes a REMOTE EVENT in the sense of 'characterizing a person', his innate, ever-lasting property, i.e. 'Roy's being my father'. It is so STATE-like that no activity can be perceived. (39b) with the suffix -hchi- attached to the Predicate expresses a less REMOTE EVENT 'Roy's becoming my (step)father'; the REMOTE EVENT described by (39a) is now moving toward the imminence of actualization--the ceremony is in progress. (39c) with the Predicate having the suffix -o designates an even more IMMEDIATE EVENT--the ceremony has just ended and Roy is now my (step-) father. Apparently the semantics of -Ø, -hchi- and -o here is not completely aspectual (especially not in the traditional sense); it has more a Mood-like property, indicating the speaker's involvement in the EVENTS in question. To recapitulate, the three elements in Alabama -Ø, -hchi- and -o illustrate an Aspect-Mood dual function which can be indicated below:

<table>
<thead>
<tr>
<th>REMOTE</th>
<th>IMMEDIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>x----------x</td>
<td>-Ø -hchi- -o</td>
</tr>
</tbody>
</table>

Aspect: IMPERFECTIVE PERFECTIVE
Mood : NONINTERACTIVE INTERACTIVE

Figure 14
3.3 Summary

In the preceding parts of this chapter, we have examined data from several languages and have found that Aspect may interact positively with other systems like Tense, Voice, ROLE and Mood. To be more specific, we have noticed that Perfective Aspect tends to intersect with Past Tense (e.g. Classical Arabic, Newari and Sherpa), Passive Voice (or PATIENT-Focus, e.g. Gujarati), relatively true PARTICIPANT (or Ergative case marking, e.g. Tongan), and/or more factual, certain and realizable Mood (e.g. Russian and Jakarta Malay), while Imperfective Aspect is more likely to correlate with Non-Past Tense (Present or Future), Active Voice (AGENT-Focus), relatively less true PARTICIPANT (or Nominative case marking), and/or relatively less factual, certain and realizable Mood, which can be summarized as follows:

<table>
<thead>
<tr>
<th>Aspect</th>
<th>IMPERFECTIVE</th>
<th>PERFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense</td>
<td>Non-Past</td>
<td>Past</td>
</tr>
<tr>
<td>Voice</td>
<td>AGENT-Focus</td>
<td>PATIENT-Focus</td>
</tr>
<tr>
<td>ROLE</td>
<td>Nominative</td>
<td>Ergative</td>
</tr>
<tr>
<td>Mood</td>
<td>IRREALIS</td>
<td>REALIS</td>
</tr>
</tbody>
</table>

Figure 15

We have not found any language that has a cross-extreme correlation or a correlation among the opposite systems without such a positive intersection as the one illustrated in Figure 15. For instance, we have no examples showing that Imperfective Aspect correlates with Past Tense, Passive
Voice and Irrealis Mood, while Perfective Aspect cannot have such a correlation. As we may expect, the interactions among Aspect and other categories mentioned above are not random; there are reasons for such correlations, some of which have already been pointed out in the course of the discussion.

Although the semantics of the categories of Tense, Voice, and Mood are not completely understood, enough descriptive work has been done to permit an initial generalization concerning the interrelation of Aspect with them. Taking ASPECT to be the formation of DIFFUSE—FOCUSSED in one of its variations allows us to see, for example, how the semantics of Mood may function in determining the semantic character of ASPECT in a given language. If Mood is the imposition of the speaker's relation to the semantic content of his utterance (in the form of an evaluation of its variety or well-formedness), then a relation between MOOD and ASPECT is permitted by the interpretation of ASPECT above, and it is, further, one to be expected in that the semantics of ASPECT and MOOD overlap in the notion of 'well-formedness', that is for ASPECT scaled along the continuum of DIFFUSE and FOCUSSED ('well-formed'), which is shaped by a principle associating lesser involvement/interaction of the speaker in the content of his utterance with a lesser degree of well-formed actuality and a greater degree of interaction with greater degree of well-formed actuality.
Alabama provides a clear example of this. We have pointed out that the REMOTE--IMMEDIATE (or NONINTERACTIVE--INTERACTIVE) contrast is the manifestation of the DIFFUSE--FOCUSSED opposition which is adopted in understanding the Alabama Mood-like Aspect system. As discussed in Section 3.5, since the REMOTE--IMMEDIATE contrast is not a temporal one, it can be formed in multiple ways. When the EVENT in question is more ACTIVE, one is inclined to interpreting the contrast manifested by -g vs. -hchi- vs. -o as IMPERFECTIVE vs. PERFECTIVE. When the EVENT named is more STATE-like, one's imposition upon the EVENT (Mood-like property) is then becoming more prominent. If the EVENT is REMOTE in the sense of describing a 'profession/habit/general truth', then nothing necessarily happens at the speech moment and thus the unmarked verbal form. If the EVENT is becoming more imminent--either the EVENT described by the Verb itself (more likely an ACTIVE Verb in this case), or the EVENT accompanying the one manifested by the Verb named (which tends to be more STATE-like)--the speaker can either perceive it in progress or merely impose his own judgement onto it, and thus -hchi-. When the EVENT is still more IMMEDIATE, either the EVENT in question has now been actualized or its accompanying ACTION that the speaker perceives has ended and the RESULTANT STATE is present, and hence -o. An ASPECT-MOOD correlation such as the one in Alabama is not accidental; it is understandable when one allows ASPECT to
be composed of semantic stuff other than 'situation-internal time'. We will not pursue further the exact nature of this relation but confine ourselves here to indicating how the categories may be semantically connected.

The interrelationship between ASPECT and ROLE is similarly based upon the common semantics of 'well-formedness'. The quintessential ergative EXECUTOR of Tongan is prompted by the semantic increment of the verbal ’i, which adds to the EVENT that well-formedness appropriate to a PARTICIPANT fully engaged in its ROLE, here the AGENT/EXECUTOR. Refer to the alternation between nominal ’a and ’e in sentences (21b) and (21c) above as a correlate to the absence or presence of the FOCUSSING ’i. This association of the semantics of 'well-formedness' in ROLES (as indicated now by ’a vs. ’e) and 'well-formedness' in ASPECT (as indicated by verbal ’i) is additionally confirmed by variation in verbal semantics. The sense change between 'shoot at' and 'shoot (and hit)' in (17) provides an example of this. A similar argument applies to the degrees of affectedness that EXPERIENCERS may show under similar circumstances. Cf. the Tongan sentences (21b) and (21c) above and the shift from nominal ’i to ’a that accompanies the presence of verbal ’i. This semantic link is again emphasized in (21) by a variation in verbal sense that correlates with the presence or absence of a FOCUSSING ASPECT and the greater CENTRALITY of a ROLE, i.e. 'speak to' vs. 'scold'.
FOCUS, which is the semantics of Voice, is taken to be connected with ASPECT in the manner suggested by DeLancey. As an EVENT unfolds, the course by which it comes to be well-formed, corresponds to specific ROLES. Thus, if one attributes lesser well-formedness to an EVENT, then the AGENT/EXECUTOR is more apt to be in the forefront of that aspect of its history. But if the EVENT is well-formed, then the EXECUTOR PARTICIPANT, having made its contribution, will have receded in our attention, leaving the EXPERIENCER as the embodiment of the successful accomplishment of the EVENT. Notice that this interpretation allows both the interaction between ASPECT and FOCUS that yield languages such as Gujarati as well as the interaction between ASPECT and ROLE that characterizes Tongan. The explanation here can only provide for the possibility of the interrelationships, but it cannot determine which will in fact occur or dominate in a language. Gujarati, indeed, seems to have both: verbal agreement expresses the ASPECT-FOCUS relation and nominal inflection, the ASPECT-ROLE relation.

TIME, finally, is typically associated with the variety of ASPECT that is Perfective/Compleative. The relative ANTERIORITY of the Perfective in Classical Arabic and the absolute PAST TIME Perfective in Newari may derive from the relation between ASPECT and MOOD; that which is well-formed and actual must have occurred. That is, its EVENT is PAST TIME relative to some reference point, and if that point is
the speech situation, then the TIME is an absolute PAST one, but if the reference point is another EVENT, then the TIME is a PAST one relative to that EVENT.

The discussion of the interactions between ASPECT and other categories as presented above is, of course, not complete. However, it is hoped to demonstrate that a view of ASPECT as we have proposed in Chapter Two, i.e. in terms of DIFFUSE vs. FOCUSSED, is better able to account for the interactions among these categories than is one based on a view of ASPECT as 'situation-internal time'. In the following chapters, we turn to examination of an aspectual system in Mandarin Chinese and see how the above-mentioned viewpoint of ASPECT can account for the functioning of aspectual markers in this language.
Footnotes

1 Gujarati is an Indo-Iranian language. It is the official language of Gujarat State, formerly part of Bombay State. The relationship between Gujarati and other Indo-Iranian languages can be illustrated as follows (based on Ruhlen 1985.538-39):

```
<table>
<thead>
<tr>
<th>Indic</th>
<th>Romany</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sinhalese-</td>
</tr>
<tr>
<td></td>
<td>Maldivian</td>
</tr>
<tr>
<td>Dardic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Western</td>
</tr>
<tr>
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<td>Parya</td>
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<td>Baluj</td>
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<td>Punjabi</td>
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<td>Marwari</td>
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<td>Gujarati</td>
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<td></td>
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</tr>
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<td>Kumauni</td>
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<td></td>
<td>Nuristan</td>
</tr>
<tr>
<td></td>
<td>Iranian</td>
</tr>
</tbody>
</table>
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2 An ergative language, according to Anderson (1976.3), is a language in which 'the morphological category to which the subject NP of an intransitive verb belongs is shared not with the NP we expect to be subject of a transitive verb, but rather with the NP we expect to be object of that verb'. However, we may see later in the discussion of Gujarati, Newari and Georgian, which are regarded as 'ergative languages', that the case marking patterns in these languages are not determined entirely by the verbal transitivity. The aspectual choice and/or the verbal semantics such as kinesis are more relevant to the choice of case marking patterns.

3 Several articles have been written on ergative languages such as Austronesian languages, particularly on the question whether these languages have 'Passive'

4 As expected, in Gujarati the verbal semantics interacts with Aspect and Voice (indicated by verbal agreement). In addition to 'buy'-type Verbs discussed in Section 3.2, the language has other types of Verbs, such as law 'bring'-type, dukh 'pain'-type (or 'impersonal' Verbs) and dhEmkaw 'scold'-type, which take PARTICIPANTS/Nouns serving as grammatical Subject with different case markings and which designate different verbal agreements. For a detailed discussion, see Mistry 1976.

5 As for the grammatical sentence (10b) and still ungrammatical (11b), with and without an expressed AGENT in the Instrument case respectively, it seems to have something to do with the properties of -sla and -en-, which can probably be accounted for in terms of different degrees of ACTION-likeness designated by the two affixes. This requires further research.

6 Tongan is a member of the Polynesian languages. See footnote 22 in Chapter Two for the relationship among Tongan and other Polynesian languages.

7 Tchekhoff (1981.33) changes these two terms into 'general unmarked' and 'perfective' because 'this aspectual pair [i.e. general unmarked vs. perfective, LMH] ... links it up with the same aspect in other systems' (1981.81, fn.50).

8 For a general discussion of the notion of CENTRAL (and that of PERIPHERAL), see Davis Ms.a, and Davis and Hardy Ms.

9 As noted in Tchekhoff 1973.616 and 1981.40, there are instances with suffixed Verbs while the AGENT is not expressed:

(1) 'oku tamate-"i 'a Mele
Pres kill - Mary
'Mary is in the state of having been killed'
[Tchekhoff's gloss]

(2) 'oku 'ofa-"i 'a Sione
Pres love- John
'Somebody loves John'
(3) na'e fa'ele -'i 'a Fifita
Past give.birth- Fifita
'x gave birth to Fifita'

Tchekhoff (1973:616) explains that the possibility of leaving out the AGENT when the Verb has the suffix -'i is because these Verbs have already had an built-in connection with their AGENT. In other words, when the Verb is marked by -'i, the AGENT, if not explicitly expressed, is implied. See Tchekhoff 1973 or 1981 for details.

10
Newari is a Tibetan language from Nepal. The language and its related languages are (based on Ruhlen 1985:547-50):

Tibetan --- Newari-Pahri [ Newari
- Digaro-Midu
- Dhimal-Toto
- Bodic
- Central Himalayan
- West Himalayan
- East Himalayan
- Dzoriga

Tibeto-Burman

Baric --- Bodo-Garo
- Chang-Tangsa

Burmic --- Kuki-Naga
- Kachin-Lui
- Burmese-Moso

11
The Newari data are all taken from Givón 1984. Although we expect with varying case markings as in (23c) and (24b-c), these sentences should present some semantic contrast, Givón (1984) does not provide us with different readings. Further research on Newari structures is needed.

12
There does exist a non-ergative coding pattern in sentences with 'break'-type Verbs, as pointed out in Givón 1984. Compare the followings sentences (Givón 1984:154):

(1) a. Context: 'Who is breaking the window?'
(focus on AGENT; ERGATIVE pattern)

b. Reply : Wō manu-nā jhya tājya-na co-nā
the man -Erg window break-Aux be-Aux
'The man is breaking the window'
(2) a. Context: 'What is the man doing?'
   (focus AWAY from AGENT; NON-ERGATIVE pattern)

b. Reply: Wō manu-ū jhya tējya-na co-na
   the man -Nom window break-Aux be-Aux
   'The man is breaking the window'

From the above examples, it is clear that the communicative function (here is RHEME) determines the use of the Ergative marker na in (1b) instead of the PERFECTIVITY of EVENTS since (1b) describes an Imperfective EVENT as well as (2b).

13

Givón (1984.156) has a different interpretation concerning the choice of using different Tense-Aspects: "drink" has a physical but non-solid, non-colorful object that disappears during the event, and thus its change of state is much less visible—and much less germain—than the change in the state of the subject from thirst to satiation. Finally, "break" has a solid physical object whose visible change is dramatic and clear.' However, as we can see in sentences (22)-(24), there is no change in the PATIENT/Object marking. Further study is desired.

14

Due to the limited data we have, it is not certain whether Sherpa designates an interaction among the systems of Aspect, Tense, ROLE and Mood, or an interaction among the systems of Aspect, Tense, Voice/FOCUS and Mood. However, since Sherpa is related to Newari, we assume they illustrate similar interactions, and hence consider that Sherpa presents an interaction among the categories of Aspect, Tense, ROLE and Mood.

15

Georgian, as stated in Aronson 1982.11, is 'the only written member of the non-Indoeuropean Kartvelian (South Caucasian) linguistic family, (and) is the official language of the Georgian Soviet Social Republic.' It and its related languages can be diagrammed as follows (based on Ruhlen 1985.537-38):
Due to the limited space, we will not be able to discuss the various semantics of these verbs which can be characterized in terms of, among others, EVENT ACTION-likeness and EVENT Controllability. Refer to Holisky 1981 and Harris 1981 for some discussion on Georgian verbal classification though their views are different from the one mentioned here.

All the Georgian data presented here and later are modified with respect to the morpheme segmentation. As for the detailed exemplification of the verbal agreements with Subject, Direct Object and Indirect Object which are determined by the verbal types and aspectual categories, refer to Harris 1981 (particularly pp. 29, 232 & 260) and to Aronson 1982 (especially pp. 463-69). Also, with regard to the morphophonemic alternations of these verbal agreement markers, see Harris 1981.

The contrast between the use or non-use of the prefixes da-, mi-, mo- and others will not be discussed here. For details, see Holisky 1981 or Harris 1981.
Chapter Four

**LE in Mandarin Chinese**

In the remainder of this dissertation, we turn our attention to four aspectual markers in Mandarin Chinese: **LE**, **guo**, **zai** and **zhe**. There are, as have been pointed out elsewhere (for example, Spencer 1970, Chen 1979, Andreasen 1981, and Li and Thompson 1981), other Aspect markers in Mandarin, e.g. **gíláí**, **xiàgù** and reduplicative verbal forms. We will, however, narrow the scope of the present study to the four primary Aspect markers mentioned above, which will be shown to form an integral system in the language. In this chapter, we will first briefly examine how the notion of ASPECT has been perceived in Mandarin by reviewing some of the earlier major treatments of the Mandarin aspectual system, in part or in a whole. Next, we will present an interpretation of the element **LE** in the context of the theory of ASPECT developed in the previous chapters. In Chapter Five, we will then examine the other three primary Aspect markers, presenting first a brief review of the earlier work. Next, we will demonstrate how these three markers and the element **LE** can be integrated into a single semantic system of ASPECT. A brief discussion of the semantic nature of Chinese Verbs is given when it is necessary to clarify the function of the aspectual particles. Finally, a summary of what has been done in this dissertation is given in Chapter
Six.

4.1 Previous major treatments of Mandarin Aspect

In this section, we will briefly examine some of the previous studies on the Mandarin aspectual system, particularly those on the marker LE. As we will see, the traditional conception of Aspect for languages in general, i.e. a temporal and verbal view of Aspect, as mentioned in Chapter One, has also been adopted by most Chinese linguists in dealing with the aspectual system of this language. For instance, according to Li and Thompson (1981.184), in contrast with Tense, which 'relates the time of the occurrence of the situation to the time that situation is brought up in speech, ... Aspect refers, not to the time relation between a situation and the moment of its being mentioned in speech, but, rather, to how the situation itself is being viewed with respect to its own internal makeup [in Comrie's sense, as noted in Comrie 1976.236, fn.1, LMH].' Likewise, Andreasen (1981.19) states that 'Aspect is, of course, connected with time in the sense that different aspects serve to show temporal relations between different situations,' which, as well as Li and Thompson's (1981), is evidently a timed view of Aspect.

The traditional account of the Mandarin aspectual system is furthermore confined by the sentence boundaries. As expected, according to the traditional view, the DOMAIN of ASPECT in Mandarin Chinese is restricted to an EVENT/Verb--a
verbal view, which is found in most traditional analyses, such as Wang 1965, Chao 1968, and Su 1973. For example, Su (1973.1) states that 'the aspect markers form an important part in the understanding of the Mandarin verbal system [emphasis mine, LMH].' Clearly, this is an instance of a verbal perception of Mandarin ASPECT. Recently, some Chinese linguists such as Spanos (1979a & 1979b), Li and Thompson (1981), Andreasen (1981) and Chang (1986) have begun to examine the function of certain aspectual markers beyond the sentence level. For example, when dealing with one of the Aspect markers in Mandarin Chinese—LE, Chang (1986.2) considers that 'going beyond the sentence level to examine the actual occurrence of LE in discourse is the necessary first step towards a better understanding of this particle.' However, this as well as most of the above-mentioned studies still adhere to a verbal view of ASPECT, 2 as will become clear in our later discussion. In the following section, we will examine the major literature regarding the aspectual marker LE in Mandarin Chinese.

4.2 Previous studies of LE

The marker LE has long been the most intensively studied aspectual marker in Mandarin. In the past three decades or so, Chinese linguists have been concerned with the question whether there is one or two morphemic LE's in the language, and if two, whether they both are Aspect markers or not. Let us first examine those studies which
propose a two-morpheme treatment of LE.

4.2.1 Two-morpheme treatment

Most of the previous works on LE (such as Chao 1968, Teng 1973, Su 1973, Henne et al. 1977, Andreasen 1981, Li and Thompson 1981 & 1985, and Li, Thompson and Thompson 1982, Chu 1983 and Chang 1986) consider that there exist two distinct although homophonous LE's, one immediately following Verbs and the other occurring in the sentence final position. On the necessity of distinguishing these two LE's, Chao (1968.246-47) states that

This suffix -le, which is a weakened form of the verb 了 liao 'finish' and can be suffixed to it like any other verb, as in 了 一件事 liao-le yijian shi 'have finished a business', should be distinguished from a homophonous particle le, probably a weak form of lai 'come', with various meanings such as 'new situation', 'progress in the story', and so on.

Li and Thompson (1981.185) also comment that 'any description of the verbal aspect marker -le must begin with the caveat that it is important to keep the perfective aspect distinct from the sentence-final particle le.' Similarly, Chang (1986.8) considers that the distinction between the two LE's is a 'prerequisite to an adequate account of the particle, since the two forms exhibit different syntactic and semantic properties.' In addition to the two factors mentioned in the above literature, i.e. the different syntactic distributions of the two LE's and their varying semantic properties, Chao (1968.247), who is generally
regarded as the representative of the Structural approach to the linguistic study of Chinese, gives another reason for distinguishing the two instances of LE arguing from dialectal evidence. Finally, Li, Thompson and Thompson (1982.42, fn.6) regard the fact that the two LE's can cooccur in one utterance as evidence that they should be treated as distinct. Let us begin by considering the dialectal evidence noticed by Chao (1968).

4.2.1.1 Dialectal evidence

In order to show that it is necessary to distinguish the verbal -le from the sentence-final le, Chao (1968.247) compares some examples taken from the Mandarin, Cantonese and Wu dialects:

(1) a. Mandarin:

Shāng-le fēng le
catch-LE cold LE
'(He) has caught a cold'

b. Cantonese:

Sheung-cox fong lhoh
catch -COX cold LHOH
'(He) has caught a cold'

c. Wu:

Sang -z fong ze
catch-Z cold ZE
'(He) has caught a cold'

As illustrated above, the two different forms in Cantonese (i.e. -cox and lhoh in [1b]) and those in Wu (i.e. -z and ze in [1c]) correspond to the same form in Mandarin Chinese (i.e. -le and le in [1a]), and this correspondence prompts
Chao to claim that there are two distinct LE's in Mandarin Chinese as well.

4.2.1.2 Syntactic distributions

Appeal to difference in syntactic distribution is based on the observation that LE occurs immediately after Verbs (generally named 'verbal -le') and that it may appear in the sentence final position (usually termed 'sentential le'). The first is illustrated in (2) and the second, in (3):

(2) a. Tā chī-le sān -wǎn fàn
    he eat-LE three-Cl rice
    'He ate three bowls of rice'

    b. Tā kàn -le jīntiān-de Zhōngwén báo
    he look-LE today -DE Chinese newspaper
    'He read today's Chinese newspapers'

(3) a. Tā chī sān -wǎn fàn le
    he eat three-Cl rice LE
    'He has eaten three bowls of rice (now)'

    b. Tā huì kàn Zhōngwén báo le
    he can look Chinese newspaper LE
    'He can read Chinese newspapers (now)'

As expected, indeterminate cases arise in which the verbal -le also appears sentence finally. Examples follow:

(4) a. Tā lái le
    he come LE
    'He came (yesterday)'
    'He has come (already)'
    'He is coming (now)'

    b. Tā kū le
    he cry LE
    'He cried'
    'He has begun crying'

In this case, analysts as well as students of Mandarin Chinese often find themselves puzzled by, and uncertain of,
which LE they are dealing with. We have noted before that the two instances of LE in Mandarin Chinese have different corresponding forms in another two dialects; that is, -cox and lho in Cantonese, and -z and ze in Wu. In addition, as Chao (1968) points out, the two different elements in dialects like Cantonese may occur successively while such a phenomenon is not allowed in Mandarin Chinese, as illustrated in the following examples (Chao 1968.247):

(5) a. Cantonese:

Yixkeng xöy-cox lho
already go -COX LHOH
'(He) has already gone'

b. Mandarin:

*YïjIng qù-le le
already go-LE LE

YïjIng qù-le
already go-LE
'(He) has already gone'

Chao's explanation for this is that 'Mandarin always avoids a repetition of the same syllable by way of haplology: -le le --> -le; in other words, the second le will simply be absorbed into the first le' (Chao 1968.247). Evidently, even when faced with the case of LE immediately following Verbs in the sentence final position, Chao again invokes dialectal evidence and continues to claim that there are two distinct LE's in the language. In sum, although there exist indeterminate cases like the above-mentioned, the different syntactic distributions of LE are one of the reasons most widely cited in claims that Mandarin Chinese has two
distinct morphemic LE's.

4.2.1.3 Semantic properties

With respect to the semantic properties of LE, the verbal -le is traditionally treated as a marker of 'Past Tense' or as indicating a 'completed action'. Examples as given in sentences (2a-b) help demonstrate such traditional interpretations. That is, (2a) with the presence of -le indicates that the EVENT chī 'eat' took place in the Past and is a completed ACTION; likewise, (2b) with -le designates that the EVENT kàn 'look; read' happened in the Past and is now a completed activity. In apparent semantic contrast with the verbal -le, the sentential le is said to give a 'change of state/status' meaning. Sentence (3a), for instance, with the sentential le expresses the idea that 'before now he hadn't eaten three bowls of rice' and 'now he has come into that state'. Similarly, (3b) having le manifests a change from 'his being unable to read Chinese newspapers before' to 'his having that ability now'. However, sentences in (6)-(7) below present some difficulty to analysts who regard the properties of both verbal and sentential LE as those mentioned above:

(6) a. Wǒ shuā -le yá jiù shàng -chuáng
I brush-LE tooth then ascend-bed
'After I brush (my) teeth, I go to bed'

b. Tā shā -le Lǐsì sì -cǐ, kěshì dōu méi shā -chéng
he kill-LE Lisi four-time but all not kill-succeed
'He attempted to kill Lisi four times, but didn't succeed in killing (him)'
c. Zhè fāngjiān xiǎo -le yǐdiǎnr
   this room small-LE a:little:bit
   'This room is a little bit too small'

d. Nà chènshān hóng-le yǐdiǎnr
   that shirt red -LE a:little:bit
   'That shirt is a little bit too red'

e. Tā dà -le wǒ shí-sì suǐ ...  
   he big-LE I ten-four year:old
   'He is older than I by fourteen years, ...'

(7) a. Zhèr tài chǎo le  
    here too noisy LE  
    'Here it is too noisy (e.g. for me to study)'

b. Líslí tài pàng le  
   Lisi too fat LE
   'Lisi is too fat (e.g. for his height)'

In these sentences, the presence of the verbal -le does not necessarily designate a Past activity (e.g. as signalled by the Non-Past form 'brush' in [6a] and 'is' in [6c-e]) nor does it denote a completed ACTION (e.g. as indicated by the Verb 'attempted' in [6b]), and the occurrence of the sentence-final le does not always indicate a 'change of state' meaning, as shown in the English equivalents in sentences (7a-b), further discussion of which will be given later.

Not following the traditional interpretation of sentential le, Li, Thompson and Thompson (1982.28-40) (cf. also Li and Thompson 1981.244-90) regard sentential le as a marker of 'currently relevant state'. To be more specific, sentential le is treated by them as an exponent of 'Perfect Aspect', which seems to be one of the reasons they claim that there are two LE's in the language. In sum, despite of
the above-mentioned 'exceptions', the different semantic interpretations of LE as illustrated in sentences (2)-(3) lead most Chinese linguists to believe that there are two separate morphemes manifested by LE in the language.

4.2.1.4 Cooccurrence of two LE's

In addition to the aforementioned three factors, Li, Thompson and Thompson (1982) note that verbal -le and sentential le can cooccur in the same utterance, as shown in the following examples:

(8) a. Wǒ chī-le yì -wǎn fàn le
    I eat-LE one-Cl rice LE
    'I have eaten a bowl of rice'

    b. Lìsì kàn -le sān -běn shū le
    Lisi read-LE three-Cl book LE
    'Lisi has read three books'

As a consequence, Li, Thompson and Thompson (1982.42, fn.6) consider that the 'sentence-final le is not to be confused with the Perfective aspect verb suffix -le, with which it happens to be homophonous.'

To sum up, the previous studies of LE, based on some variation of the above four reasons, argue that verbal -le should be distinguished from sentential le. In other words, they postulate a two-morpheme LE approach for the language.

4.2.1.5 Weak points of the two-morpheme treatment

In addition to the major infelicity, i.e. a narrow conception of ASPECT mentioned in Section 4.1, it is noted that, like Christopherson's (1939) and Jespersen's (1949)
listing eight primary uses of the Definite Article in English (as cited in Clark and Marshall 1981.22-23), some Chinese linguists (such as Chao [1968] and Lu [1983]) in their discussion of LE (either verbal -le or sentential le) tend merely to list different senses the element may give, and thus they fail to characterize its nature. For instance, Chao (1968), when discussing the functions of sentential le, considers that the particle has the following seven uses (1968.798-800):

(a) Inchoative le
(b) Command in response to a new situation
(c) Progress in story
(d) Isolated event in the past
(e) Completed action as of the present
(f) Consequent clause to indicate situation
(g) Obviousness

Such a list of the uses of LE, like the list of the uses of the Definite Article in English alluded to above is potentially endless and fails to provide an explanatory basis for how speakers perceive these as the same as well as failing to explain how speakers may extend this list. Another similar example can be found in Chang 1986, although Chang's treatment of LE constitutes an improvement. According to Chang (1986; also Chu and Chang Ms.5), verbal -le in Mandarin Chinese has three functions (1986.119):

(a) It serves as a marker of "realis", denoting an action/event that (had) happened, has happened, or is happening.
(b) In terms of discourse, it functions as an overt morphosyntactic signal for the peak event within a segment of discourse.
(c) In terms of sequencing of events, it serves to explicitly mark the anteriority,
temporal and logical, of an action/event in relation to another.

Sentential le, on the other hand, has two functions (Chang 1986.120 & 122; also Chang 1982):

(a) It serves to express a 'change of state' meaning.
(b) It serves as a discourse-final particle, marking the end of a discourse unit.

On the other hand, some linguists, in addition to listing the uses of LE, attempt to further characterize the semantics of this element. For instance, Li and Thompson (1981) identify verbal -le as expressing perfectivity, i.e., it indicates a 'bounded' EVENT which is (1981.185-86):

(a) a quantified event,
(b) a definite or specific event,
(c) an inherently bounded event, or
(d) the first event in a sequence.

They further identify sentential le as conveying the function 'currently relevant state' if the state of affairs it represents (1981.244):

(a) Is a changed state,
(b) Corrects a wrong assumption,
(c) Reports progress so far,
(d) Determines what will happen next, or
(e) Is the speaker's total contribution to the conversation at that point.

However, as we will see in our later discussion, such characterizations of LE as this are still not completely accurate nor entirely satisfactory. They fail to capture the essence of LE.

4.2.2 One-morpheme treatment

Having now examined the reasons why the two-morpheme
interpretation of LE has been posited in most of the literature dealing with this element, we must note that there are, however, some linguists who suggest that there is only one morphemic LE in the language, e.g. J. Charles Thompson (1968), Rohsenow (1978), Lin (1979), and Spanos (1979a & 1979b). Yet as we will see, the evidence cited in support of these claims is not very convincing. Rohsenow (1978.269), for example, regards the so-called perfective aspect suffix le in Mandarin as a marker of both perfective aspect and relative anteriority ... the surface Perfect marker le as well as its negative counterpart mei-you as both being surface reflexes of the co-occurrence of the underlying universal atomic predicate COME ABOUT (which accounts for perfective aspect) acting in conjunction with a commanding instance of the universal existential predicate, rendered here as YOU.

To be more specific, working within the framework of Generative Semantics, but differing from Teng (1973) and Su (1973), both of whom propose two morphemic LE's for Mandarin Chinese, Rohsenow (1978.276) treats the occurrence of both instances of LE as reflexes of 'the interaction of the two logical predicates [i.e. the atomic predicate COME ABOUT and the existential predicate represented by YOU, the Mandarin morpheme meaning 'have' and 'there is/are', LMH] in underlying structures under different syntactic conditions.' Although Rohsenow's treatment seems very systematic, (i.e., the surface form LE is derived from the underlying predicates through transformations), it is rather mechanical and
cannot satisfactorily characterize the nature of LE. It describes the syntactic distribution of LE but fails to explain it semantically.

Lin (1979) is another who presents a one-morpheme treatment of LE in Mandarin Chinese, but he arrives at this conclusion for reasons different from Rohsenow's. According to Lin (1979.154), 'there is a marker of completion, le, which occurs either immediately after a verb or after a sentence predicate, or in both positions with subtly different nuances.' Evidently, Lin considers there is only one morphemic LE, which serves as a marker of completion. Further, he states that the function of LE appears to be determined by its different syntactic distributions, varying semantics of cooccurring Verbs and contextual information.

To be more specific, Lin (1979.154-56) suggests that

When it [i.e. le, LMH] immediately follows an action or stative verb, the morpheme le indicates completion of a specific active event or of a process ... When le immediately follows a stative verb or a sentence predicate, the le form indicates that a change of state or of a generic/habitual event has been completed ... [When] a le occurs at the end of a predicate in which the verb represents an intransitive action, ... [it] can have many readings or referential meanings depending on the discourse and situational contexts ...

In short, Lin (1979.212) proposes that 'Lec [i.e. verbal -le, LMH] indicates completion of an action while lecs [i.e. sentential le, LMH], completion of change of state [also cf. Kwan-Terry 1979a, LMH] ... Therefore, lec and lecs are actually same le.' It is plausible that, in supporting his
claim of one morphemic LE, Lin (1979) tries to find the
semantic content shared by the two occurrences of LE, but
his postulation fails to explain, among many other things,
the presence of LE in sentences (6c-e) and (7a-b) which
designate no 'completion' of an ACTION or a change of STATE
at all.

Spanos (1979a & 1979b) also proposes an integrative
interpretation of LE in Mandarin Chinese. Compared with the
above-mentioned arguments, i.e. Rohsenow 1978 and Lin 1979,
Spanos's appears to be more thorough and probably more
justified. According to him (1979b.73-74), the basic
meaning of LE is to designate

a change concerning the realization of some
particular action, process, quality, or state
of affairs. The change relates either to the
internal semantic structure of the particular
verb or phrase involved or to the entire
clause or sentence to which LE is attached.
In the former case, the realization of the
change is construed in the sense of the com-
pletion of the particular action, process or
quality associated with the verb or phrase.
In the latter case, the realization is con-
strued in the sense of a shift in the spea-
kern's perception or attitude towards the par-
ticular predication and the state of affairs
associated with it ...
above, his proposal still cannot satisfactorily account for, e.g. the presence of LE in utterances like (6c-e) and (7a-b), which do not indicate any change and which hence require a different interpretation. In other words, if we accept the one-morpheme treatment, there must be some semantic similarity/sameness shared among all the occurrences of the morpheme LE in the language.

Finally, let us consider Thompson's (1968) treatment of LE. He (1968.71-73) suggests that LE be treated as marking 'an event boundary' so that the various uses of LE can be unified and there is no longer any need to consider LE of completed action, LE of change of state, and LE of incipient action as separate features. According to him (1968.71-72), 'the marker le, when it is attached to the sentence, indicates that speaker has in mind the boundary between two events,' which can be diagrammed as follows (Thompson 1968.72):

![Diagram of event boundary]

**Figure 1**

Thompson is quite right in treating LE as 'an event boundary' marker, which can indicate the beginning of an EVENT in question (e.g. hé jiǔ 'drink wine' in [9]), or the
boundary between an EVENT and a following STATE in question (e.g. ぶ は い  ū 'not drink wine' in [10]):

(9) だ う は  ी  ū  े
他 again drink wine  LE
'He drinks wine again (now)'

(10) だ は  ी  ū  े
he not drink wine LE
'He no longer drinks wine (now)'

Further, in his description of another use of LE (Thompson 1968.74), verbal -le, he is correct in pointing out that sentences like (11) may sound incomplete:

(11) だ ち-  े  แ  ō ...
he eat-LE rice
'When he has eaten, ...'

In other words, it is right for Thompson (1968.74) to consider the function of LE in sentence (11) as indicating that the EVENT in question is in fact 'one of a series'. However, such an 'event boundary' interpretation of LE, either a sentence-final le (e.g. [9]-[10]) or a verbal -le (e.g. [11]), is not satisfactory. For instance, Thompson fails to notice that LE in one utterance can be used to signal either the beginning or the end of an EVENT, as shown in the following sentence:

(12) だ  ี le
he drink wine LE
'He has drunk wine (now)'
'He drank wine'
'He has begun drinking wine'

Also, such an 'event boundary' interpretation of LE is still too narrowly construed; it cannot account for, e.g. the presence of LE in sentences such as (6c-e) and (7a-b). To
conclude, Thompson's attempt to unify the uses of LE by identifying it as a mark of 'event boundary' is quite plausible, but such a treatment, as presented above, is still problematic and fails to account for the occurrence of LE in many utterances. This failure will become clear in our later discussion.

Although linguists such as the above-mentioned four propose one-morpheme treatment of LE, their explanations are made in the absence of a unifying theory of ASPECT and seem therefore not very convincing. In the remainder of this chapter we are going to present an alternative interpretation of LE which will more consistently and accurately capture the nature of this element.

4.3 BOUNDARY treatment of LE

We have pointed out before that in the past three decades Chinese linguists have been concerned with the question whether there exists in the language one or two morphemic LE. As we will see shortly, we consider there is only one single morphemic LE which has as its semantic content the function of marking a BOUNDARY, a BOUNDARY of an EVENT, a PROPOSITION or an even larger unit. We start by examining the SUBSTANCE of this element and then turn to investigate its DOMAIN. We will continue using the terms verbal and sentential LE in the following discussion simply for easy reference.
4.3.1 SUBSTANCE of LE

In the following, we are going to examine the SUBSTANCE of the element LE. We will first discuss the semantic content of the LE immediately following Verbs, i.e. verbal -le, and then that of the LE occurring sentence finally, i.e. sentential le.

4.3.1.1 Verbal LE

Consider the following sentences, one with verbal -le and the other without:

(13)a. Lisi tiào-le shéng le
    Lisi jump-LE rope LE
    'Lisi has jumped (a) rope now'

b. Lisi tiào-g shéng le
    Lisi jump- rope LE
    'Lisi has begun jumping a rope'
    'Lisi jumped a rope'

Comparing the above two sentences, we note that the verbal -le in (13a) signals the fact that Lisi's rope jumping is complete; he is no longer jumping a rope. Without the verbal -le, (13b) does not necessarily express such inactivity; in other words, without the verbal -le, the EVENT tiào 'jump' may be implemented, but need not have been--there is simply no explicit mark showing that the performance of the EVENT tiào 'jump' in (13b) is itself bounded and complete. As a consequence, the Inceptive reading 'has begun jumping' is appropriate as is the simple Past 'jumped'; that is, unless further specified, the EVENT 'jump' may be either in progress or complete. Recall the wave-like deflection of
EVENTS which we introduced in Chapter One. The two EVENTS manifested by (13a) and (13b) can thus be illustrated as follows:

(13a) _______ \-le \________

(13b) _______ ^\________

Figure 2

While the solid arrow in (13a) designates the end point of the EVENT (grammatically marked by \(-le\)), a specific point which attracts the attention and thus the focus, the dotted arrow in (13b) signals a merely possible point (grammatically there is no \(LE\) to mark it) and shows no focus. In sum, the verbal \(-le\) marks an EVENT BOUNDARY, and its absence produces semantic vagueness/indeterminacy and hence more than one reading. In this respect, the presence and absence of the element \(-le\) can be considered as a manifestation of the FOCUSED--DIFFUSE opposition that we postulate to be the fundamental aspectual principle: the occurrence of \(-le\) denotes the FOCUSED ASPECT and the absence, the DIFFUSE.

As we may expect, semantic diversity can be affected by other factors. Consider the example below:

(14) Lisi tião be\(-le\)
Lisi jump river LE
'Lisi has jumped into a river (now)'
'Lisi jumped into a river'
'\(Lisi\) has begun jumping into a river'
In sentence (14), there is no easily perceived Inceptive meaning as in (13b) although syntactically these two utterances are alike. In contrast with sentence (13b), it is the knowledge that 'jumping into a river' is a performance the end of which follows so quickly upon the beginning that no 'beginning' as such is easily discerned. But in (13b), 'jumping a rope' is an activity with sufficient extent (repetition) so that a beginning is discernible. Jumping a rope is essentially constructed by iteration, but jumping into a river is not. One jump is not really 'jumping (a) rope', but one leap into a river will certainly constitute that activity. Clearly, in the absence of verbal -le, the presence of PATIENT hé 'river' creates a semantic BOUNDARY to the EVENT tiào 'jump'. In other words, certain 'PATIENT' types may play a role in creating a BOUNDARY to an EVENT.

In addition, a specification of TIME may have the same bounded effect, as illustrated in the following sentence:

(15) Lísi tiào sān -ge zhōngtou-de shēng le
    Lisi jump three-Cl hour -DE rope LE
    'Lisi has jumped a rope for three hours (now)'
    *'Lisi has begun jumping a rope for three hours'

The above sentence shows that, as indicated by the English glosses (only the first one is appropriate), the presence of the temporal expression sān-ge zhōngtou 'three-hour', similar to the element LE in (13a) or PATIENT hé 'river' in (14), sets up a semantic BOUNDARY to the EVENT tiào 'jump'.

Furthermore, we find that certain EVENTS, e.g. sǐ 'die' and dǎo 'fall down', are essentially characterized by the
achievement of some STATE, thereby rendering an Inceptive
gloss unacceptable. This is shown in the following example,
which can mean only 'Lisi is dead' or 'Lisi has died', but
not 'Lisi has begun to die':

(16)Lísi sǐ le
Lisi die LE
' Lisi has died (now)'
' Lisi died'
* 'Lisi has begun to die'

Moreover, in contrast with the above-mentioned Verbs, some
EVENTS such as zhīdào 'know' and dāng 'act as' are semanti-
cally characterized by the INCEPTION of some STATE, so that
in sentence (17) only the Inceptive meaning is possible:

(17)Lísi dāng zǒngtǒng le
Lisi act:as president LE
* 'Lisi has acted as president'
* 'Lisi acted as president'
' Lisi has begun to act as president'

Evidently, the semantic contents of Verbs also have an
effect in forming a BOUNDARY to an EVENT.

As we have noticed above, the variations of PATIENT
type (e.g. hé 'river' in [14] vs. shéng 'rope' in [13b]),
presence or absence of TIME (e.g. sān-ge zhōngtōu 'three-
hour' in [15]), and EVENT types (e.g. tiào 'jump' in [13]-
[15] vs. sǐ 'die' in [16] vs. dāng 'act as' in [17]) all act
to mark a BOUNDARY in some way, and their complementary
presence with verbal -le further implicates that element
specifically with the semantics of establishing a BOUNDARY.

One last example will make it clear that verbal -le is
specifically a marker of BOUNDARY:
(18) Lísì gāo -le sān cùn  
    Lísì tall-LE three inch  
    'Lísì has grown three inches taller'  
    'Lísì is three inches taller than average'  
    'Lísì is three inches too tall'

When STATIVE Verbs such as gāo 'tall' occur with verbal -le, the usual effect is that of comparison. In the first gloss of (18), 'Lísì has grown' indicates that some ACTION is imputed to gāo 'tall' and that ACTION is now bounded or complete. But it is the second and third glosses to sentence (18) that show verbal -le marks precisely the fact of discreteness and that 'completion' or an 'initiation' is but one variety of that segmentation. In the last two glosses, Lísì's tallness exceeds some limit, for instance, the average or some arbitrarily determined height, and with respect to that BOUNDARY, Lísì is tall by three inches. As we can see, in these two senses, nothing has happened—Lísì may have been introduced as a candidate for a stuntman; he is inspected and dismissed, and when it is inquired why Lísì was not accepted, the response is (18). Clearly, no activity has occurred, and there is none to be bounded, as there is none to bear the Perfective ASPECT. Here -le can only index and make discrete the opposition between 'acceptably tall' and 'too tall' and can not be interpreted as a Perfective Aspect marker, although traditionally it has been treated so. More examples like this are given below:
(19)a. Zhè-shuāng xiézi xiǎo -le yèdiǎnr, wǒ yào this-C1 shoe small-LE a:little:bit I want
  qī hào seven number
  'This pair of shoes is a little bit too small; I want size seven'

b. Zhèr chǎo -le yèdiǎnr, wǒ bàba bú hú here noisy-LE a:little:bit I father not will
  xǐhuān zhù zhèr like live here
  'It's a little bit too noisy here; my father won't like to live here'

In (19a) nothing has happened to the shoes, and likewise, in (19b) no ACTION has taken place. Both (19a) and (19b) simply present the STATES of 'shoes' being too small' and 'its being too noisy here'; -le is then used to indicate a BOUNDARY, i.e. the speaker's/EXECUTOR's expectation, with respect to the size of the shoes and to the quietness of the place. In sum, based on the examples (18)-(19) above, it should be clear that -le is marking essentially a break, a rupture, or an opposition. In the second and third glosses of (18), there is no implication of aspectual 'Completive', 'Inceptive' or 'Perfective'. It is simply that upon observation, Lisi surpasses the standard by three inches. It is that standard that defines the BOUNDARY that we intend.

Complementarily, -le may be used where it seems redundant as a mark of 'Perfective'. Compare the following sentences (Li and Thompson 1981.208-09):

(20)a. Guān -diǎo tā
turn:off-off 3Sg
  'Turn it off (e.g. the radio)'
b. Guān -le tā
turn:off-LE 3Sg
'Get rid of that noise (e.g. on the radio)!'

(21)a. Dào -diào tā
pour-off 3Sg
'Pour it out (e.g. alcohol)'

b. Dào -le tā
pour-LE 3Sg
'Pour it out (once and for all and be done with it)!

In sentences like (20)-(21), it seems again mistaken to interpret -le as Perfective. Indeed, utterances like (20b) and (21b) are Perfective, but so are the paired sentences (20a) and (21a). Verbal -le connotes 'urgency' or the fact that 'something is to be disposed of or gotten rid of' (Li and Thompson 1981.207). This circumstance is then a motivation for marking the BOUNDARY, not necessarily the completion of the 'turning off' or the 'pouring out', but the BOUNDARY between the radio's being on and off or between the alcohol's being kept or discarded, which attract our attention. Further examples are given below (Li and Thompson 1981.211):

(22)a. Bié xuăn nèi-táng kè
don't select that-C1 course
'Don't take that course'

b. Bié xuăn -le nèi-táng kè
don't select-LE that-C1 course
'Don't take that course (you'll be sorry if you do)'

Comparing (22a) with (22b), we may note a consequence of using verbal -le, that is, the presence of LE in (22b) points to the outcome of taking the course and thus constitutes a 'warning' (Li and Thompson 1981.211; also Li and
Thompson 1985.320-21). Again, -le achieves this effect by directing the listener's attention to the BOUNDARY between 'not taking the course' and 'taking it', the point at which the fact of consequence becomes relevant. The effect of 'warning', as we can see here, is not necessarily associated with the interpretation of -le as essentially 'Perfective'; the notion of BOUNDARY, however, seems better suited to the interpretation of (22b). Another thing to note here is the copresence of biē 'don't' and LE. Normally, Negative EVENTS do not cooccur with verbal -le (cf. Wang 1965, Teng 1973, and Li and Thompson 1981.204-05), and the use of verbal -le has accordingly been interpreted as marking the EVENT as actualized or real. In this case, the cooccurrence of biē 'don't' and LE in the Negative Imperative seems to contradict the above claim. Apparently, to interpret -le as a 'Perfective' Aspect marker indicating an actualized EVENT is problematic and requires our further consideration.

Before we move on to the examination of sentential le, we want to emphasize that the notion of BOUNDARY is not to be taken in the aspectual sense of Perfective as used by Li and Thompson (1981.185-86) (cf. also Li and Thompson 1985.310):

We [Li and Thompson, LMH] have said that the verbal aspect suffix -le expresses perfectivity, that is, it indicates that an event is being viewed in its entirety or as a whole. An event is viewed in its entirety if it is bounded temporally, spatially or conceptually. There are essentially four ways in which an event can be bounded:
A. By being a quantified event
B. By being a definite or specific event
C. By being inherently bounded because of
   the meaning of the verb
D. By being the first event in a sequence

It is clear that Li and Thompson intend to unify the various
uses of verbal -le by identifying it as a marker of 'bound-
ness'; however, they take 'bounded' as a typical kind of
'Perfectivity' in which the EVENT is viewed 'in its entirety
or as a whole'. But it is only with great difficulty that
the use of -le in the above utterances can be characterized
without 'reference to internal temporal constituency'
(Comrie 1976.21). And in the second and third senses of
(18), there seems no temporal constituency at all--either
'internal' or 'external'--to serve as reference point for
deciding whether -le should be Imperfective or Perfective.
At this juncture, verbal -le seems perfectly balanced
between the two categories of Perfective and Imperfective,
pointing precisely at the fact of discreteness, a RUPTURE
between two contrasting conditions or occurrences. While
contrasting with Li and Thompson's interpretation of
'bounded', the use of BOUNDARY in the present discussion has
much in common with J. Charles Thompson's (1968 & 1970) use
of 'boundary' in the description of Mandarin, as illustrated
in Section 4.2.2.

So far we have examined the property of verbal -le and
noted that it is better characterized as marking BOUNDARY.
In the following section, we are going to analyze the nature
of sentential le.

4.3.1.2 Sentential LE

Recall sentence (13a) with sentential le (repeated below):

(13)a. Lisi tiào-le shéng le
Lisi jump-LE rope LE
'Lisi has jumped (a) rope (now)'

As indicated in (13a), the content of sentential le is reflected in the Adverb now and in the English Present Perfect. The perception is that of an opposition between 'Lisi's having jumped the rope' and 'an earlier state before the rope is jumped'. It is the two conditions of 'not having jumped' and 'having jumped' that are placed in opposition by sentential le, which achieves this by marking a BOUNDARY between them. More examples with sentential le are given below:

(23)a. Tā jiè -le yān le
he quit-LE smoke LE
'He has quit smoking (now)'

b. Wǒ kàn -le bào le
I look-LE newspapers LE
'I have read newspapers (now)'

(24)a. Tā chí sān -wăn fàn le
he eat three-Cl rice LE
'He has eaten three bowls of rice (now)'

b. Wǒ huí kàn Zhōngwén bào le
I will read Chinese newspaper LE
'I can read Chinese newspapers (now)'

(25)a. Tā gāo sān -cún le
he tall three-Cl LE
'He has grown three inches taller (now)'

b. Wǒ pàng sān -bàng le
   I fat three-pound LE
   'I have grown three pounds fatter (now)'

As in (13a), sentential le in (23a) marks an opposition between 'not having quit smoking' and 'having quit smoking'; in (23b), it indicates a contrast between 'not having read newspapers' and 'having read newspapers'. Similarly in (24)-(25), even without verbal -le, sentential le marks a BOUNDARY between 'not having eaten three bowls of rice' and 'having done so' in (24a); that between 'being unable to read Chinese newspapers' and 'being capable of doing so' in (24b); that between 'not having grown three inches' and 'having grown so' in (25a); and that between 'not having added three pounds' and 'having added them' in (25b). The description of verbal -le as a mark of BOUNDARY discussed in the preceding section is repeated in sentence-final le, with the difference between verbal -le and sentential le being a matter of what the speaker assumes within his/her purview.

That sentential le functions to mark BOUNDARY becomes even clearer when we compare the following complex sentences:

(26)a. Wǒ shuā -le yá jiù shàng -chuáng
   I brush-LE tooth then ascend-bed
   'After I brush (my) teeth, I will go to bed'

b. Wǒ shuā -le yá jiù shàng -chuáng le
   I brush-LE tooth then ascend-bed LE
   'After I brushed (my) teeth, I went to bed'

c. Wǒ shuā -le yá le. Wǒ shàng -chuáng le
   I brush-LE tooth LE I ascend-bed LE
   'I've brushed (my) teeth. I went to bed'
The absence of a sentential le following yá 'tooth' in (26a) and (26b) permits the blending of the content of wǒ shuā yá 'I brush (my) teeth' with wǒ shàng-chuáng 'I go to bed'. The effect of this is seen in the semantic 'after' (and in Mandarin, in the presence of jiù 'then') and in the normal absence of a repeated Pronoun wǒ 'I'. On the other hand, the occurrence of a sentential le after yá 'tooth' in sentence (26c) forces a separation between the two EVENTS in question; they are now more nearly two independent utterances in succession. As expected, (26c) is more likely used by a child when responding to his mother's inquiry into the completion of the nightly pre-bedtime routine; uttering (26c) simply enumerates the components of that routine. The looseness that comes from that BOUNDARY marked by sentential le is also detected in the more easily repeated Pronoun wǒ 'I'. That is, its presence in (26c) does not add to the strangeness of that sentence, but adding wǒ 'I' to (26a) is clearly noticeable, something a foreigner might say.

The fact that sentential le marks BOUNDARY is confirmed as much by where it is inappropriate as by its appropriateness. For example, 'le is not used when the speaker is simply asserting a general truth in a conversation where no change is involved' (Li and Thompson 1981.293), a fact which is also noted in Chao 1968.245-46 and J. Charles Thompson 1968.71. However, as we mentioned before, Li and Thompson (1981.240) describe sentential le as signalling a 'Currently
Relevant State' or 'a state of affairs ... [with] special current relevance with respect to some particular situation'. Accordingly, an utterance without sentential le is expected not to be currently relevant. But consider the following sentence (Li and Thompson 1981.292):

(27) Wǒ chángcháng gēn tā xué quán
I often with 3Sg learn boxing 'I often study boxing with him/her'

It is difficult to see why sentence (27) is not a 'currently relevant state' and thus followed by LE. The more general statement/explanation about this seems to be that no BOUNDARY is implied in (27): the practice is ongoing, and there is no contrast with a preceding contrary state, i.e. 'not studying boxing with him/her', nor a contrast with a following one, e.g. implying 'so now I am feeling better'. In other words, there is nothing to be concentrated on; the EVENT in question 'study boxing' is DIFFUSE.

Based on the preceding discussion of both verbal -le and sentential le, we consider that the semantic content of LE is better perceived as marking BOUNDARY. The presence and absence of LE, without other aspectual markers occurring in an utterance, designates the contrast between FOCUSED and DIFFUSE, which will become even clearer in our later discussion.

4.3.2 DOMAIN of LE

We have demonstrated above that the semantics of both occurrences of LE is to serve as a BOUNDARY marker. As for
the DOMAIN of **le**, although not explicitly stated, the preceding discussion on the SUBSTANCE of **le** shows that the DOMAINS of the verbal *-le* and the sentential *le* are not the same: the former refers to a verbal DOMAIN, and the latter a propositional one. This is confirmed by (26b) and (26c), which illustrate the noncongruency of BOUNDARIES, and which again reflect the varying DOMAINS of *-le* and *le*. The contrast between (26b) and (26c) can be diagrammed as follows (reproduced from Chapter One):

![Diagram](image.png)

wǒ shuā- jiù shàng- le ya  wǒ shuā- wǒ shàng- le yà le  chuáng le

**Figure 3**

Above we have seen that the DOMAIN of **le** can be either an EVENT/Verb or a PROPOSITION/Sentence; however, there is no empirical, nor logical, reason to limit the DOMAIN of **le** to one or the other. It can be extended to a larger unit, as illustrated by the following sentence (Li and Thompson 1981:283):
(28) Wǒ chī-de tài bǎo le
    I eat-DE too full LE
  'Let me tell you,) I am too full from eating'

The element LE in (28) can be regarded as a marker of
BOUNDARY between two STATES: 'not being too full' and 'being
too full'. In this respect, LE here has as its DOMAIN the
whole PROPOSITION. However, LE in (28) can also be treated
as, according to Li and Thompson (1981.283), closing a
statement; without LE, it seems the speaker intends to say
more. In this sense, LE in (28) marks the BOUNDARY fol-
lowing the assertion of a full stomach, and this BOUNDARY
extends its relevance beyond the propositional content to
the speech situation marking the BOUNDARY between one
speaker's contribution and his readiness to accept that of
another. The use of sentential LE here places a discrete
point in the flow of conversation, and thus marks a conver-
sational turn. Such a use of LE reveals the fact that the
DOMAIN of LE should not be limited to EVENT or PROPOSITION;
it needs to be broadened to include units larger than PROPO-
SION, as illustrated above. To recapitulate, the DOMAIN
of LE can be either an EVENT, a PROPOSITION, or a larger
unit.

On the basis of what has been found:

(i) semantically all occurrences of LE mark a
  BOUNDARY (i.e. semantic similarity/same-
  ness),

(ii) distributionally they either immediately
    follow Verbs or occur sentence finally
    (i.e. complementary distribution), and
    thus designate differing DOMAINS of EVENT,
PROPOSITION or a larger unit,
we consider that LE is better treated as a single morpheme
in Mandarin Chinese. Such an approach integrates more of
the diversity of LE than the aforementioned one- or two-
morpheme treatment. In the following, we will briefly
examine other benefits of the one-morpheme treatment of LE
we have presented here.

4.3.3 Other advantages of one-morpheme treatment of LE

We have suggested that there is only one morphemic LE
in Mandarin Chinese and have interpreted LE as marking a
BOUNDARY within three areas of relevance. Such a BOUNDARY
interpretation of LE provides still another benefit. Occa-
sionally, it is difficult to determine from the grammatical
signal whether the LE is applicable to a verbal, a senten-
tial, or a discourse DOMAIN (Li and Thompson 1981.298-300):

(29) Huǒ mìè le
    fire extinguish LE
    'The fire has gone out'

Sentence (29) can have LE interpreted as bounding the EVENT
mìè 'extinguish' or as bounding the PROPOSITION. And as
with other uses, any additional context will persuade one
that verbal -le or sentential le is present. For instance,

(30)a. Zuótiān wānshang huǒ mìè le
    yesterday evening fire extinguish LE
    'Yesterday evening the fire went out'

 b. Huǒ yījīng mìè le
    fire already extinguish LE
    'The fire has already gone out'

In (30a), the temporal expression zuótiān wānshang
'yesterday evening' pushes the verbal sense to the fore, while in (30b) yījīng 'already' inclines one to the sentential relevance. The difficulty arises in part from the mistaken assumption that two elements, and not one, may occur in sentence (29), and that it must be one LE or the other, and not both simultaneously. Further, although two LE may appear within one utterance (e.g. [31a]), they never appear contiguously (e.g. [31b]):

(31)a. Līsì tiào-le shēng le
    Lisi jump-LE rope LE
    'Lisi has jumped (a) rope now'

b.*Huǒ mìè -le le
    fire extinguish-LE LE

This is no problem if we assume there is only one morpheme LE. In sentence (29), i.e. huǒ mìè le, the context is ambiguous, allowing LE potentially to be interpreted with relevance to the EVENT mìè 'extinguish', or to the PROPOSITION, or to both at one time. If there is but one LE, this is what we would expect, and as the EVENT semantics inclines one to an Inceptive or a Completive sense for a verbal -le, so here the context directs the interpretation one way or the other.

The analysis presented here also provides an explanation for the seeming nondifferentiation of the sentences in (32):

(32)a. Līsì gāo -le sān cùn le
    Lisi tall-LE three inch LE
    'Lisi has grown three inches taller (now)'
b. Lisi gao -le sān cùn le
Lisi tall-LE three inch LE
'Lisi has grown three inches taller (now)'

The use (or nonuse) of verbal -le produces no discernable semantic contrast, or one so elusive that it is exceedingly difficult to characterize. This would be a surprising outcome if verbal -le were distinct from sentential le. Yet if each marks a BOUNDARY—one for the EVENT and another for the PROPOSITION—and if the extent of each should be the same as is the case here in a simple sentence, then we would expect that one or the other LE may be redundant, adding content that is already implicit in the other. And as we might expect, it is the LE with the greater reach to its semantics—here the sentential le—that effectively preempts the verbal -le. Therefore, while (32a) and (32b) are near paraphrases, sentences (33a) and (33b) are not:

(33)a. Lisi gao -le sān cùn le
Lisi tall-LE three inch LE
'Lisi has grown three inches taller (now)'

b. Lisi gao -le sān cùn ə ...
Lisi tall-LE three inch
'Lisi has grown three inches taller ...
'Lisi is three inches taller than average ...
'Lisi is three inches too tall ...

They contrast, as Li and Thompson suggest, in the impression that—unless closely framed as in an answer to a question—sentence (33b) is somehow incomplete, while (33a) is whole. It is just this sharp contrast that is missing in (32a–b).

To recapitulate, the one-morpheme treatment of LE, particularly the one proposed here, i.e. the BOUNDARY
interpretation of LE, has more benefits and can help us better understand the properties and uses of this element. Below, we will discuss how the concept of BOUNDARY can be incorporated into other interpretations of LE, such as those suggested by Li and Thompson (1981), Andreasen (1981), and Chang (1986).

4.4 Extension of the notion of BOUNDARY

In the preceding discussion, we have shown that the notion of BOUNDARY can better characterize the nature of the element LE. Moreover, as we will see shortly, this concept is extendable to include some other linguists' findings of LE, either verbal or sentential. Let us first consider how the concept of BOUNDARY can account for Li and Thompson's treatment of sentential le.

4.4.1 Li and Thompson's 'currently relevant state'

Li and Thompson (1981.244-90) list five contexts that prompt a sentential le (cf. also Li, Thompson and Thompson 1982.28-40):

(34) Describing a changed state or 'something that has just come to their attention' (Li and Thompson 1981.245 & 259):

a. Tā táo -de -chū -lái le
   3Sg escape-Pot-exit-come LE
   'S/He can escape now (s/he couldn't before)'

b. Zhèi shí yīngwù le
   this is parrot LE
   'This is a parrot!'
(35) Correcting a wrong assumption:

Wǒ chī-guo le  
I eat-GUO LE  
'(The new situation that you don't realize yet is that) I've already eaten (so no thanks)'

(36) Reporting progress so far:

Tā niánjì duó dà le  
3Sg age how big LE  
'(In a discussion about the ongoing career of a political leader) How old is s/he (at this point)??'

(37) Determining what will happen next:

Wǒ xǐ -hǎo -le yīfu le  
I wash-finish-LE clothes LE  
'I've finished washing the clothes (so now I'm free to play chess with you)'

(38) Closing a statement: 'That is, for many le sentences in conversation, the le "completes" the sentence; without it, the sentence sounds incomplete, as if the speaker intends to say more' (Li and Thompson 1981.283):

Wǒ chī-de tài bǎo le  
I eat-DE too full LE  
'(Let me tell you,) I am too full from eating'

In each of these contexts appropriate to sentence-final le, we can again see the consistent presence of BOUNDARY. In sentences (34a-b), the assertions with le point to a BOUNDARY preceding them, thus in (34a) contrasting his/her ability to escape with an implied (by that BOUNDARY) earlier inability, and in (34b) contrasting the speaker's realization of a parrot with an earlier nonrecognition. In (35), the BOUNDARY sets off a supposed belief of the speaker's not having eaten from the positive assertion of the content that s/he is to eat again. In sentence (36), le places a
BOUNDARY, a point in the narrative, and explicitly questions a circumstance—the politician's age—at that point. In (37) the BOUNDARY is placed following the instantiation of the clothes washing as in (35) the BOUNDARY follows the eating; and it is only the context that fills the BOUNDARY-following void with 'so now I'm free to play chess with you'. Sentence (38), like (37), has the BOUNDARY following the assertion of a full stomach, but here, as stated in Section 4.3.2, the BOUNDARY extends its relevance beyond the propositional content to the speech situation marking the BOUNDARY between one speaker's contribution and his readiness to accept that of another.

Given the occurrence of LE utterance finally, it is natural that there be some vagueness as to whether LE is relevant to the content of the preceding utterance or the fact of utterance, as noted before. Indeed, in sentences (34)-(38), it is difficult to disentangle the material of the PROPOSITION from the non-linguistic experience of the speakers with respect to the placing of a BOUNDARY. In (34b), for example, the LE seems equally to parse the speaker's experience into a period of prerecognition and one of postrecognition of the parrot. The utterance with LE then identifies the nature of that experience, while LE marks the presence of a BOUNDARY. The use of sentential LE here is to place a discrete point in the flow of conversation, thus marking conversational turns. The very
experience of the speakers is subject to the organizing force of LE, and it is this extension of the relevancy of LE beyond the substance of utterance, to the substance of experience, that accounts for the perception encapsulated by Li and Thompson in their phrase 'Currently Relevant State', and by others in the use of the English Perfect as a mode of translation. The fact that speakers are one with their experience and with their memory of their experience implies that, when the substance of experience is made discrete, that organization will affect them directly leaving the impression of 'current relevance'.

As with the verbal interpretation of LE's, the BOUNDARIES signalled may precede the content of the utterance, e.g. (34a-b) and (35), or they may follow, e.g. (36) and (37), or they may index a point outside the immediate utterance, relating it (the utterance) to that point, e.g. (38). But in any case, the essence of LE is merely to mark BOUNDARY, which thus explains the seeming endless senses one may discover.

4.4.2 Andreasen's 'foregrounding and backgrounding'

Closely following Li and Thompson, Andreasen (1981.20, fn.2) regards verbal -le as a Perfective Aspect marker and sentential le as a marker of Perfect Aspect. Further, agreeing with Hopper (1977 & 1979), Andreasen (1981.15-16) remarks that 'Aspect is one of the foremost means for distinguishing the foregrounded from the backgrounded portions
of a narrative, ... [and in Chinese narrative] foregrounding and backgrounding are accomplished almost exclusively through aspectual opposition.' Specifically, he (1981.57) adds that 'the majority of the foregrounded events will be marked ... for the Perfective aspect. And ... the majority of the background information will be conveyed by [among others] ... categories of Imperfective aspect.' Consequently, Andreasen attempts to characterize LE in terms of the notions of foregrounding and backgrounding; that is, based on his studies of eleven examples of written narrative, he (1981.98) holds that verbal -le is one of the typical foregrounding devices in narrative discourse and is primarily present in clauses expressing information directly relevant to the story line. As for sentential le, Andreasen (1981.58), following Li and Thompson, regards it as 'used primarily in the background of the narrative'. However, as we will see shortly, while his treatment of verbal -le as a foregrounding device is acceptable, his analysis of sentential le as a backgrounding device is questionable.

In Chapter Two, we postulated that the fundamental principle of ASPECT is the DIFFUSE--FOCUSSED opposition. Also, we pointed out there that the aspectual opposition may be used to signal the contrast between foregrounding and backgrounding. That is, we may find an utterance which contains the marker indicating DIFFUSE ASPECT expressing foregrounding information and an utterance with the marker
of the FOCUSED ASPECT presenting foregrounding information. As noted in the earlier discussion of this chapter, LE in Mandarin Chinese marks a BOUNDARY, showing the opposition between two states and hence a marker of the FOCUSED ASPECT. As can be expected, LE is one of the devices marking the foregrounding information; it is directly relevant to the story line. In this respect, Andreasen's analyzing verbal -le as one of the foregrounding devices is plausible; however, his viewing sentential le as a backgrounding device is rather problematic. First of all, his only example of a backgrounding sentence-final le is very questionable. The sentence is taken from a modern short story named Yào 'Medicine', written by Lu Xun in 1919 (Andreasen 1981.172):

(39) Qiūtiān-de hòu-bàn-yè
     autumn -DE very:early:morning
     yuēliàng xià      -qù le
     moon descend-go LE
     tàiýáng hái     méi-you chū ... 
     sun still not-have rise

'It was a very early autumn morning. The moon had gone down; the sun had not yet risen, ...'

In sentence (39), there is no grammatical evidence to signal whether the LE in question is a verbal one or a sentential one if one accepts there are two distinct LE's in the language. Further, since this example appears in the opening portion of a story and describes a still, dark, pre-dawn autumn morning, it seems more like a scene-setting, and hence expected to be more backgrounding-like. The presence
of LE in this context prompts Andreasen mistakenly to interpret LE as a backgrounding device. Nevertheless, according to our analysis, LE here still draws our attention to a BOUNDARY, a BOUNDARY between two states—in this case, 'the moon's not having gone down' and 'its having gone down', regardless of the sun's having risen or not. Consequently, LE concentrates the reader's attention and thus a FOCUSED marker. Moreover, recall in the preceding section the discussion on conversational turn marked by LE. Evidently, the LE there cannot serve as a backgrounding device; it marks the role shift between the speaker and the hearer. Clearly LE in this position (i.e., the sentence-final position) indicates a contrast, a FOCUSED part in a situation.

To sum up the present discussion, we consider that LE, either a verbal or a sentential one, marks a BOUNDARY and thus, along with many other devices, may signal a foregrounded EVENT.

4.4.3 Chang's 'discourse interpretation'

The concept of BOUNDARY seems also to be extendable to include the discovery by Chang (1982 & 1986), and Chu and Chang (Ms.).

Chang (1982 & 1986) follows the conventional interpretation that sentential le indicates 'change of state', but he also notices that in numerous cases, the element does not express any 'change of state' meaning. In cases like this, Chang proposes the element be treated as a discourse-final
particle, marking the end of a discourse or topical unit, as illustrated in the following example (Chang 1982.24):

(40) Yěxǔ zhè yě shǔ zhèngfǔ gēn jiào shì
perhaps this also be government and teacher
nǔlì gēng yǔn suǒ dé-de chéng guǒ le
endeavor cultivate get -DE result LE

'Perhaps this also is the result of the government and teachers' endeavor in cultivation (of the school children)'

However, Chang (1982.27) observes there are also cases where le is needed for both discourse and semantic (i.e. to express 'change of state') reasons. Consider sentence (41b) below (Chang 1982.26):

(41)a: Lǎo Lín a! Wǒ zài zěnme chā, yǒu nǐ diànhòu,
old Lin A I again how bad have you behind
wǒ yě xīn-ān-lǐ-dé, wěn-rùò-tài-shān le
I also rest:assured composed:as:Mt. Tai LE

'Old Lin, no matter how bad I may be (in teaching), with you following behind, I can compose myself and feel rest-assured'

b: Ai! niánjīng là le, yào pīn dehuà, nă pīn
alas age big LE want compete if how compete
de guò nǐ -men zhè -qǔn niánqīng -ds, wǒ zēnmo
DE surpass you-Pl this-Cl young -DE I how
yuè -jiāo -yuè -huí pū le?
more-teach-more-back LE

'Alas! I'm too old now. Even if I want to compete, how can I compete with you young people? (How come) the more I teach, the worse I am getting!'

Chang (1982.27) suggests that while le in (40) and (41a) can only be accounted for in terms of the discourse function, i.e., it serves as a discourse-final marker, in (41b) le 'not only expresses "change of state" [i.e. Chang's semantic
function, LMH] but also indicates the end of a discourse unit [i.e. Chang's discourse function, LMH].'

Nevertheless, as Chang (1982.33-34) remarks, there are still some cases 'where the discourse function requires le to occur but the semantic function forbids it'. An example follows (1982.34):

(42)a: Nǐ shì nǎi -guó rén?
you be which-country man
'What's your nationality?'

b: Wǒ shì Zhōngguó rén Ø
I be China man
'I'm Chinese'

Chang (1982.34) concludes that 'le will not be used discourse-finally when the speaker is stating a general truth where the "change of state" meaning is undesirable.'

Likewise, Chang (1986) observes there exist cases in which the semantic function of expressing a 'change of state' meaning desires le to be present, but the element does not occur until the end of a discourse unit, as illustrated in the following example with the le's in parentheses showing such positions (Chang 1986.123-24):

(43)a. Shìshìshang, nà -jiàn máoyī yī làn-chéng in:fact that-CL sweater already rot-become
pò -piàn (le)
broken-piece LE

b. xǐ yě wú-fā xǐ (le)
wash also no-way wash LE

c. zāng -de bù -néng zài bǎocún (le)
dirty-DE not-can again keep LE

d. hǎoxiàng jiù yǐliú zài Xiǎojìnmen le seem then leave at Xiaojinmen LE
'In fact, that sweater had already rotten into rags. (It) could no longer stand washing. (And it was) so dirty that (it was) not worth keeping (any more). (It) seems that (I) left (it) in Xiaoqinmen.'

Chang (1986.125) comments that 'the insertion of le in these [potential] positions, though well-motivated on semantic grounds, is inappropriate in terms of the over-all discourse structure. In fact, if le were inserted in each of the potential positions, the passages would become "choppy" and the smooth flow of each passage would be severely impeded.'

As we have seen above, Chang's interpretations seem to contradict each other; however, these statements in fact confirm our previous postulation—the semantic content of LE is to mark a BOUNDARY, either serving as, in Chang's term, a discourse-final particle or denoting 'change of state'. In addition, Chang (1982 & 1986) himself actually points out the presence of BOUNDARY in many places, such as

(a) ... le is used to signal the end of each speaker's remark and without it, each remark sounds incomplete, as if the speaker wants to say something more and the hearer would not know if it is his turn to speak (1982.26-27)

(b) ... le is used to mark the end of one unit and thus the beginning of another (1982.29)

(c) LE in this case functions as a boundary marker between topical units, separating the 'background' information from the main body of the correspondence (1982.29)

(d) ... the author's use of le corresponds nicely with the divisions of the main body of the correspondence (1982.30)
(e) ... the more related the units are (under the same topic), the less frequent is the use of the particle le [i.e., no BOUNDARY is present, LMH] (1982.31)

(f) ... le typically occurs at the end of a discourse block and serves as a boundary marker between discourse units (1986.125)

(g) ... (le is) used as a boundary marker between topical events within a discourse unit (1986.128)

In discussing verbal -le, Chu and Chang (Ms.10) (cf. Chang 1986.105) point out that verbal -le patterns in stretches of discourse larger than the sentence and in this -le tends to occur 'toward the end of a story line ... [and in] one of its discourse functions ... [-le is] to mark the peak clause of a segment.' For instance (Chu and Chang Ms.10; also Chang 1986.108):

(44)a. Ýuṣhî, Mîng-dî biàn pàiqiǎn Œ Câiyîn hé consequently Ming-emperor then send Caiyin and Qînjîng liâng-ge guānyuán dào Yîndû ɡû qiúqû Qinjing two -Cl official to India go search fō -jîng Buddhist-sutra

b. Tâmen zǒu -dào Œ xi'ànzài Āfûhàn de yí -ge they walk-to now Afghanistan DE one-Cl dîfâng place
c. dêdào -le fō -jîng hé fō -xiàng acquire-LE Buddhist-sutra and Buddhist-statue

'Therefore, Emperor Ming sent two officials, Caiyin and Qinjing, to India to search for the Buddhist Sutras. When they came to a place known today as Afghanistan, they found the Sutras and Statues'

As shown above, -le occurs only with the last Verb which
indicates the culminating EVENT in a sequence of EVENTS/Verbs. Many have observed that the frequent use of the verbal -le is stylistically strained, producing what Chu and Chang (Ms.17, or Chang 1986.110) call a 'choppy effect'. In other words, when -le is present with each Verb, each EVENT seems equally prominent in weight. It is judiciousness in the use of -le that permits a sequence of statements to blend without BOUNDARIES so that the subsequent use of -le toward the end of the narration will effectively mark, thereby, a more prominent BOUNDARY, and produce the effect of a 'peak'.

To sum up, the interpretation of LE as marking BOUNDARY is extendable to include, in addition to Li and Thompson's (1981) and Andreassen's (1981) treatments of LE, Chang and Chu's (Ms.) and Chang's (1982 & 1986).

4.5 Concluding remarks

In this chapter, first we have reviewed several major treatments of the Mandarin Aspect system, particularly those on the element LE. Then, we have presented an alternative and more powerful interpretation of LE. Separately, the observations that we have made on LE are not new; but collectively, and especially in the context of a more plausible view of ASPECT as outlined before, the result is unexpected. To recapitulate, we consider that there is only one morphemic LE in the language. As we have demonstrated in this chapter, the semantic content of LE is better interpreted as
marking BOUNDARY; with other things equal in an utterance, the presence and absence of LE can be seen as another manifestation of the fundamental aspectual principle mentioned in Chapter Two, that is, DIFFUSE vs. FOCUSSED. As for the DOMAIN of LE, it can be an EVENT/Verb, a PROPOSITION/Sentence, or an even larger unit; consequently, the dual occurrence of this element LE is to be expected and should not be an argument for its differentiation.

In the following chapter, we will examine three additional Aspect markers in Mandarin, namely, guo, zai and zhe. The description of LE proposed here will provide the basis of an integrated account of these four marks of ASPECT, a result that will in turn confirm the correctness of our interpretation of LE.
Footnotes

1 Conventionally, the marker -le is used to indicate the LE immediately following a Verb (and hence named verbal -le) while the marker le is used to designate the one occurring in the sentence final position (and called sentential le). We will adopt these conventions and also use the marker LE when its syntactic position does not concern us. Furthermore, as we will see later in this chapter, we consider there to be only one morphemic LE in the language, and hence LE is used for representing this element/morpheme.

2 As we will see shortly, when, for instance, linguists consider Mandarin Chinese to have two distinct morphemic LE's, verbal and sentential, ASPECT treated by these linguists is expected to be a verbal category. We will discuss below this in more detail.

3 Among those who propose a two-morpheme treatment of LE, there is greater disagreement concerning the status of sentential le. For instance, while most linguists regard it as designating a 'change of state/status' without explicitly stating whether it is an Aspect marker or not, Lü (1947) and Wang (1954) treat it as a Mood particle, Teng (1973) and Lu (1975) regard it as an Inchoative/Inception marker, and Li, Thompson and Thompson (1982) and Fan (1984.89) consider that both verbal and sentential LE should be treated as Aspect markers.

4 As also noted in Tsung 1971.82 and Lin 1979.154, fn.1, to say that le occurs in 'the sentence final position' is not really accurate since sentence particles like ba, ne, a, ou, etc. may occur after le. For example,

(1) Lái xǐ -zào le ba
    come wash-bath LE BA
    'Come to take a bath!'

(2) Tā chǐ-fàn le ou
    he eat-rice LE OU
    'He ate'
    'He has eaten'
    'He has begun eating (rice)'

However, in the present discussion, we still follow the conventional description and state that le occurs in 'the sentence final position'.
The transcription of Mandarin data taken from Chao 1968 (used here as well as later) and also from some other analysts' (which will appear later) has been changed into the Pinyin system for the sake of consistency.

Chao (1968) also suggests an etymological reason for treating verbal -le and sentential le as two distinct elements. According to him (1968.246-47), -le is derived from the Verb liǎo 'finish' and le from the Verb lái 'come'. However, Chinese grammarians are not in agreement on this point and we do not attempt to further discuss the etymological factor here.

We will continue using these two terms to identify LE occurring in different syntactic positions. It is merely for the convenience sake, and does not mean that we agree there are two distinct morphemes realized as le in the language. We will come to this problem later in this chapter.

Brandt (1943) and Pettus (1943) identify LE as a marker of 'past tense', while Wang (1947), He (1954) and Kratochvil (1968) treat LE as a marker expressing a 'completed action'. Similar to the latter, Chao (1968.246) treats the verbal -le as a Perfective Aspect marker in the sense that it has 'the class meaning of completed action'. Recently, Li and Thompson (1981), not completely following the traditional linguists, propose a functional description of LE. They treat the verbal -le as a marker of the Perfective Aspect, used in situations in which the notion 'boundness' applies. We will return to their conception of 'boundness' later.

We consider it a mistake to treat sentential le as an exponent of 'Perfect Aspect' proposed by Li, Thompson and Thompson (1982). Although we agree with them that ASPECT does not need to be a verbal category (as we have discussed before) and the sentence-final le is also an Aspect marker in Mandarin Chinese, we disagree with them in their treatment of sentential le as an exponent of the 'Perfect Aspect'. They postulate that the final le has a 'function of relating events/states to a Reference Time' (1982.19), yet we consider that the Time Reference in question should not be attributed to part of the meaning of this sentential le. Spanos (1979b.80) also has a similar observation: 'The exact time at which the action, process, quality or state is realized is not a part of the meaning of LE. Rather, the time element depends upon the context ... of the sentence.'
Chen (1979.30) gives an explicit statement concerning a one-morpheme treatment of LE. He regards LE as marking the Aspect of occurrence, claiming that when 'this marker [i.e. LE, LMH] serves either as a verbal suffix, or as a sentence particle in an utterance, it has the semantic function of directing the focal point of the utterance to the very occurrence of the action, or the whole event expressed in the utterance.' Ma (1977) seems also to suggest a one-morpheme treatment for LE. She equates the two LE's, but since that is not the focus of her paper, she does not elaborate upon the non-distinction.

Spanos' study on LE is considered to be the first to launch a large-scale survey on native speaker's usage of this particle. It is also the first attempt to account for the use of LE in pragmatic terms instead of the traditional sentential analysis.

This is also pointed out elsewhere, e.g. Li and Thompson 1981.283-84.

Most of the following discussion is based on Huang and Davis 1986.

With regard to Verb classification in Mandarin Chinese, refer to Huang 1985 or Chapter Five in this dissertation.

This is noted, for instance, in Chu and Chang Ms. and Andreasen 1981. According to Chu and Chang (Ms.5), 'The verbal suffix -lé is basically for marking non-continuing factual actions/events'. Andreasen (1981.56, fn.10) suggests the following schematization to show the element LE is used to designate 'factual':

<table>
<thead>
<tr>
<th>FACTUAL</th>
<th>COUNTER-FACTUAL</th>
<th>NON-FACTUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>fact</td>
<td>contrast between what is</td>
<td>can't make a judgement;</td>
</tr>
<tr>
<td></td>
<td>supposed to be the case</td>
<td>possible; guess</td>
</tr>
<tr>
<td></td>
<td>and what is</td>
<td></td>
</tr>
<tr>
<td>---realis---&lt;-------------irrealis----------------&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tā qù-le</td>
<td>tā běnlái yào qù</td>
<td>tā kěnén lái</td>
</tr>
<tr>
<td>he go-LE</td>
<td>he originally want go</td>
<td>he maybe come</td>
</tr>
<tr>
<td>'He went'</td>
<td>'He originally wanted to go'</td>
<td>'He may come'</td>
</tr>
</tbody>
</table>
In Declarative sentences, verbal -le cannot cooccur with Negative element méiyóu, while other Aspect markers such as guo, zai and zhe can. This can probably be accounted for on the basis of different semantic contents of these elements. However, owing to limited space, we will not further discuss the (in-)compatibility between the Negative and these Aspect markers in the present study.

Such a DOMAIN contrast is also pointed out in Spanos 1979b (as already noted in Section 4.2.2) as well as in Fan 1984.

This is the basis of Chang 1982.

A similar, but not exactly identical, observation can be found in Fan 1984.89: 'Semantically, it is also the le indicating a "change of state" that gives the aspectual interpretation of a whole sentence [my translation, LMH].'

Considering that Aspect is one of the foremost means for distinguishing the foregrounded from the backgrounded portions of a narrative, Hopper (1977.22; cf. 1979.216) states:

In extended discourse, ... the perfective aspect is found mainly in kinetic, sequential events which are central to the unfolding of the narrative. The beginning of one event is contingent upon the completion of the preceding event, and it is from this contingency that the notion of completeness which is characteristic of perfective aspect derives—the idea of the action viewed "as a whole". Imperfective aspect is used typically for backgrounding: situations, descriptions, and actions ... which are simultaneous or overlapping with a perfective event ...

Other foregrounding devices, according to Andreasen (1981.98), include verbal complements, post-objective directional complements, preverbal directional phrases, etc.

However, as noted by Chang (1986), if 'emphasis on each individual piece of information' is desired [i.e., the presence of BOUNDARY is intended, according to our
interpretation], le's are added. Compare the following two sentences (Chang 1982.44-45, as cited in Chang 1986.129):

(1) (In answer to the question why nobody wants to marry a certain lady)

a. Tā niánjì dà, rén yě chóù, suǒyì méi rén
   she age big person also ugly so no man
   yào le
   want LE
   'She is old; she is also ugly; so no one wants (her) now'

b. Tā niánjì dà le, rén yě chóù le, suǒyì méi
   she age big LE person also ugly LE so no
   rén yào le
   man want LE
   'She is old (now). (What is more,) she is/has
   become ugly (now). So no one wants (her) now'

23
Due to limited space, we will not provide the data in question. Readers are encouraged to refer to Chang 1986.26-31.
Chapter Five

Aspect Markers Guo, Zai and Zhe

In the preceding chapter, we examined some of the previous major treatments of the Aspect marker LE and proposed an alternative treatment of LE based upon a BOUNDARY interpretation of the aspectual substance of FOCUSSED. There is as yet no category expressing the opposed value of DIFFUSE in Mandarin but shall find—as we investigate the other three primary Aspect markers in this chapter—a representation of aspectual DIFFUSENESS in opposition to LE, i.e. guo. We will further demonstrate that the four Aspect markers, i.e. LE, guo, zai, and zhe, form an integral aspectual system which is based on two implementations of FOCUSSED--DIFFUSE, namely, the BOUNDED--UNBOUNDED opposition (i.e. the notion of BOUNDARY posited in Chapter Four) and the IMMEDIATE--REMOTE opposition mentioned in Chapter Two. In the following section, we will begin with the element guo, briefly reviewing some earlier analyses of this marker.

5.1 Guo

Since Dragunov's (1952) identification of the element guo as an Aspect marker, most Chinese linguists have included this marker into their discussions of the Mandarin Aspect system. However, disagreement arises among linguists concerning whether the guo in question is an Aspect marker or not. Such an indeterminacy (or confusion) is owing to
the fact that *guo* following a Verb can serve as a verbal complement—either a resultative (cf. John Lu 1977.276-313), a directional, or a phase complement (cf. Chao 1968.251 & 450)—or as an Aspect marker. In addition, *guo* can be a full Verb meaning 'to pass through or across (in time or space)'. Chao (1968.466) remarks that some phase complements including *guo* 'have the neutral tone and sometimes suffer vocalic reduction and become aspect suffixes.' In other words, while *guo* as a full Verb or a verbal complement carries the fourth tone, it bears the neutral tone when serving as an Aspect marker. In the present study, we do not intend to further discuss this problem. We are mainly concerned with the nature of the *guo* which functions as an Aspect marker. Below, we will briefly review some previous major treatments of the aspectual *guo*.

5.1.1 Previous treatments of *guo*

The aspectual *guo*, which Chao (1968.251) regards as a marker of the 'indefinite past aspect . . . with the class meaning of "happened at least once in the past,—ever"', is now called the 'Experiential Aspect marker' by most Chinese linguists, such as Su (1973), Henne et al. (1977) and Li and Thompson (1981). Below are some examples with this element:

1. a. Wǒ chī-*guo* yú- *chì*  
   I eat-*GUO* fish-*FIN*  
   'I have eaten shark's fin (before)'

   b. Tā kàn-*guo* Zhōngguó diàn*yìng*  
   he see-*GUO* China  
   'He has seen Chinese movies (before)'
c. Wǒmen qù-guò Měiguó
we go-GUO America
'We have been to the United States (before)'

As noted in the above examples, when there is no temporal indication showing when the EVENT in question takes place, guo is regarded as signalling that the EVENT named has been experienced at least once some time in the Past and thus an Experiential Aspect marker, as conventionally treated.

A more thorough analysis of guo is provided by Ma (1977). She (1977.16-17) considers that (i) in the absence of a specific time referent, guo indicates a past experience, a more 'remote' past: (ii) it signals that a previous condition no longer holds true; and (iii) it is used only when the EVENT which the Verb manifests can recur.

To illustrate these properties of guo, Ma gives the following examples (1977.16-17):

(2) a. Tā dào Zhōngguó qù-guò
he arrive China go-GUO
'He has been to China'
[at least once and is no longer there]

b. Tā ài -guo Zhāng Xiǎojie
he love-GUO Zhang Miss
'He once loved Miss Zhang'
[but no longer]

c.*Tā sǐ -guo
he die-GUO
'He died once'

d.*Tā lǎo-guò
he old-GUO
'He had once been old'

According to Ma, both (2a) and (2b) with guo indicate that the EVENTS 'going to China' and 'loving Miss Zhang' took
place some time in the Past and do not hold true any more, as shown in the English glosses. In (2c) and (2d), the two EVENTS 'dying' and 'being old' are regarded by Ma as being incapable of recurring and thus incompatible with *guo*.

As mentioned above, without any time specification, *guo* is generally regarded as indicating a remote past experience. However, Lin (1979.156) points out that *guo* can sometimes be treated as a 'recent past complete aspect marker'. For instance (Lin 1979.156-57):

(3) Wǒ chī-*guo* yú -chī le
    I eat-*GUO* fish-fin LE
    'I've eaten the shark's fin already'
    'I've (the experience of) eating shark's fin'

According to Lin (1979.215), *guo* can be 'used to indicate the completion of an event in the recent past: a specific interpretation'; it can also be 'used to indicate the completion of an event in the indefinite past: a generic interpretation.' As shown by the English equivalents of sentence (3), the first reading indicates that the Object *yúchī* 'shark's fin' is Definite as signalled by the English Article 'the' and that the EVENT 'eating (the) shark's fin' has recently completed, and according to Lin, *guo* here serves as a 'recent past complete aspect marker'. The second reading, on the other hand, shows that *yúchī* 'shark's fin' here is generic and does not refer to any specific shark's fin, and that the speaker has only an experience of eating shark's fin in the indefinite past. So *guo* then functions as an Experiential Aspect marker. As for which
function is chosen (and/or which reading of an utterance is referred to), according to Lin (1979.157), 'discourse and situational contexts ... play important roles.' For example, Lin considers that in (3) whether eating shark's fin is common or not in a given society may influence the probability of a given reading. However, such an interpretation does not really help us understand the nature of guo; it fails, for instance, to account for the ungrammaticality of sentences (2c-d). Moreover, the presence of the sentential le in sentence (3) may contribute, partially if not entirely, to the sense of 'recency'; guo itself may not have such a semantic content and cannot legitimately be treated as a recent past complete Aspect marker.

Even noticing that guo has different uses and referential meanings, Lin (1979.157) treats all the occurrences of guo (including the guo's when serving as a directional or resultative complement, which we will not further discuss here,) as one element with the same one invariant meaning; that is, completion in the relative past (Lin 1979.222). Teng (1973.20), however, claims that there are two guo's in Mandarin Chinese: one is an Experiential Aspect marker and the other a Perfective Aspect marker, on the basis of semantic and syntactic contrast. In illustration of such contrast, Teng gives the following sentences (1973.19-20):

(4) a. Nǐ qu-guo Zhōngguó méi-you?  
you go-GUO China not-have  
'Have you been to China before?'
b. Wǒ qù-

**guo** Zhōngguó
 I go-

**GUO** China
'Yes, I've been to China before'

c.*Wǒ qù-

**guo-le** Zhōngguó
 I go-

**GUO-LE** China
'Yes, I've been to China before'

d. Wǒ méi(-you) qù-

**guo** Zhōngguó
 I not -have go-

**GUO** China
'No, I've never been to China before'

(5) a. Nǐ chī-

**guo** fàn (le) méi-you?
you eat-

**GUO** food (LE) not-have
'Have you eaten (rice) yet?'

b. Wǒ chī-

**guo** le
 I eat-

**GUO** LE
'Yes, I've eaten already'

c. Wǒ hái méi(-you) chī
 I yet not -have eat
'No, I haven't eaten yet'

d.*Wǒ hái méi(-you) chī-

**guo**
 I yet not -have eat-

**GUO**
'No, I haven't eaten yet'

According to Teng (1973), semantically the element **guo** in (4a) (i.e. Teng's Experiential Aspect marker) is distinct from that in (5a) (Teng's Perfective Aspect marker) because the former is to inquire about a previous experience whereas the latter the completion of an EVENT 'eating'. Syntactically, as an answer to questions with **guo** like (4a) inquiring about a previous experience, the Experiential **guo** is still present in the negative response (e.g. [4d]) while the 'Perfective' **guo** is obligatorily absent in answering a question with **guo** inquiring about an EVENT completion (e.g. [5c] vs. [5d]). In other words, Teng considers that Mandarin Chinese has two Perfective Aspect markers: **LE** and
guo. At first sight, Teng's postulation seems to be acceptable since it is observed, e.g. by Lin (1979.216), that in many cases these two markers appear to be interchangeable.

Examples follow (Lin 1979.215-16):

(6) a. Wǒ chī-guo fàn le
   I eat-GUO rice LE
   'I have had my meal already'

b. Wǒ chī-le fàn le
   I eat-LE meal LE
   'I have had my meal already'

(7) a. Wǒ gāngcái shuō-guo, wǒ yào bāngzhù rén
   I just:now say -GUO I want help person
   'I(‘ve) just said moments ago that I want to help people'

b. Wǒ gāngcái shuō-le, wǒ yào bāngzhù rén
   I just:now say -LE I want help person
   'I(‘ve) just said that I want to help people'

The two sentences of each pair above seem to convey similar messages. In other words, if LE in (6b) and (7b) served as a Perfective/Complete Aspect marker (which is not correct, as we have seen in Chapter Four), it would be legitimate for Teng to treat guo in (6a) and (7a) also as a Perfective Aspect marker (Lin's 'recent past complete aspect marker'). However, as shown in sentences (8a-b) below, the two elements guo and LE in fact do contrast semantically:

(8) a. Gǒu (gāngcái) chī-guo nǐ -de píngguǒ
dog just:now eat-GUO you-DE apple
   'The dog just took a bite of your apple'

b. Gǒu (gāngcái) chī-le nǐ -de píngguǒ
dog just:now eat-LE you-DE apple
   'The dog just ate your apple'

With the presence of the adverbial gāngcái 'just now', the
EVENT chī 'eat' in both (8a)-(8b) designates a recent past activity. Yet the two sentences are not exactly equivalent to each other. In sentence (8a) with guo, it is normally expected that the dog merely took a bite of the apple and that there is still part of the apple left, while in-(8b) with LE, the whole apple is usually supposed to be gone. Here the contrast between guo and LE seems to be a manifestation of the PARTITIVE--TOTAL opposition, which will be elaborated in the later discussion. Evidently, guo and LE do not function as grammatical synonyms.

In utterances in which guo and LE seem to have similar interpretations, Su's (1973.39) explanation is that roughly 'speaking, only action verbs for daily activities can take the experiential guo to mean what might be expressed by the perfective le.' For instance (Su 1973.39):

(9) a. Tā shūl -guo wú -jiào méi-you?
   he sleep-GUO noon-sleep not-have
   'Did he take a nap?'

b. Tā kāi -guo huì méi-you?
   he open-GUO meeting not-have
   'Did he attend the meeting?'

Shùliào 'sleep' in (9a) and kāihù 'attend meetings' in (9b) are ACTION Verbs manifesting daily activities; thus according to Su (1973), it is more likely to treat the element guo in (9a-b) as a Perfective Aspect marker. Su (1973.40) then states that

Since the experiential aspect marker guo indicates that an action has taken place at least once, the action can be completed long ago in the past or just before the time of utterance.
In one sense the experiential *guo* can be regarded as a particular point or particular points on a continuum, to the near end of which it is very close to the perfective aspect when the reference of time is the time of utterance, while to the far end of which nothing close to the perfective aspect is seen.

Ma (1977.29-30) is another who discusses the cases in which *guo* and *LE* both appear to be used to express a completed ACTION, but she suggests a different explanation.

Consider the following examples (Ma 1977.19):

(10)a. Tā dào Táiwān qù-*guo* yī -cì
     he arrive Taiwan go-*GUO* one-time
     'He went to Taiwan once'

     b. Tā dào Táiwān qù-*le* yī -cì
     he arrive Taiwan go-*LE* one-time
     'He went to Taiwan once'

(11)a. Tā zài Zhōngguó zhù -*guo* sān -nián
     he at China live-*GUO* three-year
     'He lived in China for three years'

     b. Tā zài Zhōngguó zhù -*le* sān -nián
     he at China live-*LE* three-year
     'He lived in China for three years'

Ma (1977.19) attributes the above interchangeability between *guo* and *LE* to the presence of a specific number-measure expression (e.g. *yī-čì* 'once' in [10a-b]) or a duration of time expression (e.g. *sān-nián* 'three years' in [11a-b]).

So far we have noted that there are cases in which *guo* and *LE* seem to be interchangeable, as pointed out in Su 1973, Ma 1977 and Lin 1979. However, we have also noticed that even if *guo* and *LE* could both be treated as 'Perfective' Aspect markers (specifically when *guo* is regarded as, in Lin's term, 'recent past complete aspect marker'), the
two still contrast semantically, as illustrated in sentences (8a–b). Moreover, there are many cases with these two elements that present clear semantic contrast. Note the following sentences:

(12)a. Tā duǎn -guo tuǐ
   he break-GUO leg
   'He once broke (his) leg'
   [it may have healed since]
   
   b. Tā duǎn -le tuǐ ...
   he break-LE leg
   'He has broken (his) leg ...'
   [probably it is still in a cast]

(13)a. Zhāngsān lái -guo
   Zhangsan come-GUO
   'Zhangsan has come (here) before'
   [he came and left]
   
   b. Zhāngsān lái -le
   Zhangsan come-LE
   'Zhangsan is coming (here)'
   'Zhangsan has come (here)'
   'Zhangsan came (here)'

As indicated by the English glosses for (12a) and (13a), guo signals a more REMOTE happening in that the named EVENT no longer holds true; LE in (12b) and (13b) marks a more recent/IMMEDIATE occurrence, since, as the English glosses show, the effect/result of the EVENT may still obtain. Evidently the two markers guo and LE contrast. The question now is why sometimes the two elements 'seem' to be interchangeable and sometimes they more sharply contrast—What is the real nature of the element guo?

Finally, consider Ma's (1977) claim that guo is only permitted with Verbs that allow for the possibility of recurrence. Such a proposal seems to be able to explain the
ungrammaticality of sentences (2c-d); however, as Chen (1979.28-29) points out, examples like sentence (14) below with Verbs expressing unrepeatable EVENTS (here niáng qīng 'be young') may take guo as well:

(14) Nǐ yě niáng qīng-guo
    you also young -GUO
    'You were young once (before)'

In other words, whether an EVENT is repeatable or not is not the crucial factor in determining the presence of guo. Other factors are relevant as well.

We have seen that the current descriptions of guo are inadequate and incapable of accounting for discrepancy as stated above; they fail to capture the semantic content that enables the use of the element. In the following section, we present an alternative interpretation of guo using the notion of BOUNDARY (proposed in the preceding chapter) and the opposition of IMMEDIACY--REMTENESS (suggested in Chapter Two), both of which, together, better characterize the marker guo and help us understand the functions of this element, particularly as opposed to the marker LE.

5.1.2 Nature of guo

As mentioned earlier, it has been argued whether there is one aspectual guo or two, and whether the element designates, in the absence of temporal expressions, a REMOTE/Indefinite Past Aspect marker or an IMMEDIATE/Recent one. In the present study, we agree with Su (1979) and Lin (1979), who consider that there is only one aspectual guo in
Mandarin Chinese. Such a claim is justified here by our observation that the two occurrences of the aspectual *guo* have a semantic identity; that is, the element indicates a departure from a **BOUNDARY**. In order to show such a characterization of *guo* is more plausible than the aforementioned treatments, let us first recall our postulation of **LE** as a **BOUNDARY** marker discussed in the previous chapter. There we suggested that **LE**, instead of being treated as a Perfective Aspect marker, is better regarded as a mark of **BOUNDARY**, **BOUNDARY** of an **EVENT**, a **PROPOSITION** or an even larger unit. As can be noted, both **LE** and *guo* share the semantic identity of marking **BOUNDARY**, yet they can be distinguished from each other on the basis of the **IMMEDIATE-REMOTE** opposition (i.e. 'proximity' vs. 'departure'), which can be schematized as follows:

```
BOUNDARY
↓
------------x------------------x-------------
IMMEDIATE         REMOTE
LE                      guo
```

**Figure 1**

To make our point clear, the following sentences need to be examined:

(15)a. Zhāngsān shā -guo rén
Zhāngsan kill-GUO person
'Zhangsan once killed a person/persons'

b. Zhāngsān shā -le rén...
Zhāngsan kill-LE person
'(After) Zhangsan killed a person/persons ...'
(16a) Zhāngsān lái -guo Méiguó
Zhansan come-GUO America
'Zhansan once came to the United States'
[and he left]

b. Zhāngsān lái -le Méiguó ...
Zhansan come-LE America
'(Ever since) Zhansan came to the United States ...'
[he is still here now]

(17a) Zhāngsān jìn -guo dà xué
Zhansan enter-GUO university
'Zhansan once attended a university'

b. Zhāngsān jìn -le dà xué ...
Zhansan enter-LE university
'(After) Zhansan attended a university ...'

As indicated in the English equivalents of (15a-b), the
EVENT '(Zhansan's) killing a person/persons' in (15a),
which is grammatically marked by guo, took place some time
in the past (i.e. REMOTE) and Zhansan now may be out of the
jail with the implication that having paid his debt for the
crime, it is now behind him. The EVENT '(Zhansan's)
killing a person/persons' in (15b) with the element LE is,
on the other hand, more likely to be interpreted as having
just happened; it is IMMEDIATE and thus the result obtains,
i.e., Zhansan is guilty and is yet to be punished. In
short, when an EVENT is seen as being REMOTE, its result/effect no longer obtaining, the marker guo is chosen instead
of LE; otherwise, LE is used. Such a contrast between
REMOTENESS and IMMEDIACY signalled by guo and LE respective-
ly is also present in sentences (16a-b). In (16a), guo
indicates that the EVENT lái 'come' is a REMOTE activity and
Zhansan is no longer in the United States. As for LE in
(16b), it shows that the EVENT lái 'come' has happened recently and thus Zhangsan is now still here in the United States. Similarly, while (17a) with guo indicates that Zhangsan once attended a university and that he no longer does so, (17b) with LE expresses that Zhangsan has entered a university and is now studying there; the IMMEDIATE--REMOTE opposition is again present in sentences (17a-b). Consequently, as designated in Figure 1, while LE marks a proximal EVENT BOUNDARY, guo signals a departure from the BOUNDARY, which effectively renders the EVENT REMOTE.

More examples that designate the IMMEDIATE--REMOTE contrast are given below:

(18)a. Tā dāng -guo zōngtóng
   he act:as-GUO president
   'He once was the president'

b. Tā dāng -le zōngtóng ...
   he act:as-LE president
   '(After) he became the president ...'

(19)a. Lìsì pàng-guo
   Lisi fat -GUO
   'Lisi was once fat'

b. Lìsì pàng-le
   Lisi fat -LE
   'Lisi has become fat'

(20)a. Xiāngjiāo guল -guo
   banana expensive-GUO
   'Bananas were once expensive'

b. Xiāngjiāo guł -le
   banana expensive-LE
   'Bananas have become expensive'

Unlike the Verbs given in sentences (15)-(17), i.e. shā
'kill', lái 'come' and jīn 'enter', which are ACTIVE Verbs,
the Verbs in (18)-(20), i.e. dăng 'act as', pàng '(be) fat' and quì '(be) expensive' are STATIVE Verbs. Considering the English glosses to the (b)-sentences in (15)-(20), we may notice that when cooccurring with LE, ACTIVE Verbs in sentences (15b)-(17b) tend to designate 'Perfective' EVENTS (in other words, LE is to mark the END BOUNDARY) whereas STATIVE Verbs in (18b)-(20b) refer to the BEGINNING of STATES in question (i.e., LE here signals the BEGINNING BOUNDARY), as illustrated below:

\[
\begin{align*}
\text{ACTIVE :} & \quad \downarrow \quad \text{BOUNDARY} \\
& \quad x \quad \text{---} \quad \text{---} \\
& \quad \text{LE}
\end{align*}
\]

\[
\begin{align*}
\text{STATIVE :} & \quad \downarrow \quad \text{BOUNDARY} \\
& \quad x \quad \text{---} \quad \text{---} \\
& \quad \text{LE}
\end{align*}
\]

Figure 2

This is not the case with guo. Whether the EVENT in question is ACTIVE or STATIVE, guo marks a point departing from the END BOUNDARY, which can be diagrammed as follows:

\[
\begin{align*}
\text{ACTIVE :} & \quad \downarrow \quad \text{BOUNDARY} \\
& \quad x \quad \text{---} \quad x \quad \text{---} \\
& \quad \text{LE} \quad \text{guo}
\end{align*}
\]

\[
\begin{align*}
\text{STATIVE :} & \quad \downarrow \quad \text{BOUNDARY} \\
& \quad x \quad \text{---} \quad x \quad \text{---} \\
& \quad \text{LE} \quad \text{guo}
\end{align*}
\]

Figure 3
As Figure 3 illustrates, *quó* signals a point departing from the END BOUNDARY of an EVENT or STATE manifested by the Verb in question. In other words, *quó* marks a point in the second/subsequent stage, away from the END BOUNDARY of the first stage. This property of *quó* thus helps us better understand why *quó* has been interpreted as marking a REMOTE experience and *le*, compared with *quó*, an IMMEDIATE one.

The interpretation of *quó* as presented above can further account for why *quó* is sometimes treated as a Perfective Aspect marker (cf. Teng 1973) or a 'recent past complete aspect marker' (cf. Lin 1979). As pointed out in Su 1973 and Lin 1979, *quó* is easily interpreted as a Perfective Aspect marker when the EVENT Verb is ACTIVE or the EVENT in question is a daily activity. Our explanation is: as schematized in Figure 3, the BEGINNING and END BOUNDARIES of a STATIVE EVENT are rather distant from each other, i.e., a STATIVE EVENT has longer PERIODICITY, whereas the two ENDS of an ACTIVE EVENT are relatively closer to each other, i.e., the PERIODICITY is shorter. Since *le* is to signal the proximity of BOUNDARY (the END BOUNDARY of an ACTIVE EVENT and the BEGINNING BOUNDARY of a STATIVE EVENT), and *quó* a Departure from the BOUNDARY (the END BOUNDARY of either EVENT type), the two points marked by *le* and *quó* are relatively closer to each other in an ACTIVE EVENT than in a STATIVE EVENT, as illustrated in Figure 3. Consequently, we may expect that *quó* in an ACTIVE EVENT/Verb, rather than in
a STATIVE EVENT/Verb, is more likely to be treated as a 'Perfective' Aspect marker and is more easily interchangeable with LE, as shown in sentences (9a-b). The interaction between verbal semantics (different degrees of ACTION-likeness) and aspectual interpretations (Experiential or Perfective) can be illustrated in the following diagram:

![Diagram showing relationships between Active, Static, and Perfective states with LE and Experiential guo]

Figure 4

As Figure 4 shows, when an EVENT/Verb moves upward on the ACTIVE--STATIVE scale, the space between the extremes of IMMEDIATE--REMOTE decreases so that LE and guo become more semantically similar. Effectively, the Experiential interpretation of guo approaches the 'Perfective' interpretation. Consequently, guo appears to be replaceable by LE.

Not only the semantic content of Verbs plays a role in guiding the interpretation of guo as a 'Perfective' marker, other linguistic or non-linguistic information may have a similar effect. Let us examine a linguistic factor first. Consider the sentences below:
(21a. Tā chī-guo wǎnfàn ...  
he eat-GUO dinner  
'He has eaten dinner (already) ...'

b. Tā chī-guo Zhōngguó cài  
he eat-GUO China food  
'He has had/tried Chinese food (before)'

(22a. Wǒ hē -guo chá ...  
I drink-GUO tea  
'I have drunk tea (already) ...'

b. Wǒ hē -guo Huādiāo  
I drink-GUO Huadiao  
'I have drunk/tried Huadiao (before)'

(23a. Wǒ xǐ -guo zǎo ...  
I wash-GUO bath  
'I have taken a bath (already) ...'

b. Wǒ xǐ -guo Tūérqí yù  
I wash-GUO Turkey bath  
'I have taken a Turkish bath (before)'

In the above sentences, the semantic content of guo as designating a DEPARTURE from the BOUNDARY remains unchanged; it is the cooccurring element (here, the Object/Noun) that has a certain effect on the interpretation of guo, changing its sense from Experiential Aspect to 'Perfective'. For instance, wǎnfàn 'dinner' in (21a) and Zhōngguó cài 'Chinese food' in (21b) both cooccur with the Verb chī 'eat' but each forces the element guo to be interpreted differently. In our life experience, we have 'dinner' every day, a constant/recurring experience; consequently, when sentence (21a) is uttered, even though the element guo signalling a REMOTE experience is present, the listener is guided to search for such an experience of 'having dinner' within a one-day time span. Apparently, the Object/Noun wǎnfàn 'dinner' is
crucial in guiding the hearer to look for the experience
named in a relatively recent past, and the sentence expres-
ses a RECENT EVENT. On the other hand, Zhōngguó cài
'Chinese food' in (21b) does not have such an effect, espe-
cially in an area where Chinese food is not very common and
where people seldom eat Chinese food. In other words, not
everybody has the experience of 'eating Chinese food'. As a
consequence, when sentence (21b) is uttered, the hearer has
to search in his memory whether he has such an experience
before. The experience may have become extant last night or
five years, ten years ago (also recall Su's [1973.40] simi-
lar observation); there is no definite length of time to
define the notion REMOTENESS expressed by guo. However, in
contrast with sentence (21a), (21b) is more likely to indi-
cate a further past experience, a REMOTE ACTION. Likewise,
(22a)-(22b) and (23a)-(23b), respectively, illustrate the
same contrast between IMMEDIACY and REMOTENESS. The fact
that the two sentences in each pair above, with the same
Verb but with a different Object, can give different aspec-
tual interpretations ('Perfective' or Experiential) further
confirms our earlier claim that ASPECT should not be limited
to an EVENT/Verb. ASPECT should legitimately be able to
have a larger unit as its DOMAIN.

Non-linguistic information (as noted in Lin 1979) may
lead the element guo to be interpreted in different ways as
well. Observe the following:
(24) Chī-guo fàn le ma?
eat- GUO rice LE MA
'Have you eaten?'
'Have you ever had rice?'

(25) Nǐ chī-guo yú -chí méi-you?
you eat- GUO fish-fin not-have
'Have you eaten the shark's fin?'
'Have you ever eaten shark's fin?'

(26) Tā xiě -guo máobǐ -zì méi-you?
he write- GUO brush:pen-word not-have
'Has he done (his) calligraphy assignment (already)?'
'Has he done calligraphy (before)?'

Each utterance above gives more than one reading; one indicates an IMMEDIATE/‘Perfective’ ACTION and the other a REMOTE/Experiential activity. For example, sentence (24) is normally intended to mean 'Have you eaten?'—an ordinary greeting in Taiwan or Mainland China, whereas only when a person carries a sarcastic tone (as pointed out in Fan 1984.97) can the utterance give the second reading 'Have you eaten rice?', which questions one's experience of 'having eaten rice'. Evidently, the choice of one reading or another here is not owing to any linguistic factor, but an extra-linguistic one. In the same vein, the choice of the first or second sense of sentence (25), according to Lin (1979.157), is dependent on some discourse and situational contexts, such as whether shark's fin is served as a common dish in a society or not, or whether the sentence is uttered right after the dish of shark's fin is served in a banquet. Sentence (26) demonstrates a similar situation: for a Chinese student, especially in a primary school in Taiwan, writing calligraphy is regarded as a daily/weekly activity
and thus the first reading—a 'Perfective' interpretation. Otherwise, the second reading is chosen and the Experiential interpretation is more intended.

The IMMEDIATE–REMOTE opposition is then relative in two ways. First, it may vary in its implementation being manifest as nonexistent–existent effects (e.g. [18]–[20]), as remote, one-of-a-kind experience versus recent, every day experience (e.g. [21]–[26]), or as a partitive versus total experience (e.g. [8a]–[8b]). Sentences (27)–(28) illustrate that the contrast in (8) is not isolated:

(27)a. Wǒ hē -guo nà -bēi chá
   I drink-GUO that-CL tea
   'I had a sip of tea in that cup'
   [there is still some tea left]

   b. Wǒ hē -le nà -bēi chá
   I drink-LE that-CL tea
   'I drank up the tea in that cup'
   [probably no tea is left]

(28)a. Wǒ chī-guo nà -tiáo yú
   I eat-GUO that-CL fish
   'I have tried that fish'
   [there is still some fish left]

   b. Wǒ chī-le nà -tiáo yú
   I eat-LE that-CL fish
   'I ate up that fish'
   [probably the fish is all gone]

The PARTITIVE–TOTAL contrast, grammatically signalled by the choice of guo or LE, can be seen as another manifestation of the DIFFUSE/REMOTE–FOCUSSED/IMMEDIATE opposition. Recall Finnish, which associates the PARTITIVE with the IMPERFECTIVE as an implementation of DIFFUSENESS and TOTALITY with PERFECTIVE as the contrasting
manifestation of FOCUSED. Secondly, the IMMEDIATE–REMOTE opposition in Mandarin may manifest varying interpretations of what counts as 'remote'. REMOTE may, for example, extend to the very limits of one's experience (e.g. [1] and many other examples), to the limit of the current day (e.g. [9], [21a], [22a], [23a], [24], etc.), and to an even shorter term. For instance, when a person comes out of the meeting room, very likely he may say a sentence like (29a) right there and then:

(29)a. Wǒ kāi -guò hù ē le
    I attend-GUO meeting LE
    'I have attended the meeting'

The above expression with guo may imply that the speaker perceives the meeting as being far off/REMOTE; he is now free and able to do something with the listener. Although sentence (29b) can also be used in that context, it mainly indicates that the meeting is finished:

(29)b. Wǒ kāi -le hù ē le
    I attend-LE meeting LE
    'I have attended the meeting'

The contrast between (29a) and (29b) as described above has nothing to do with time or space. It indicates the speaker's perception of his INTERACTION with the EVENT named, either IMMEDIATE or REMOTE (recall the Alabama example discussed in Chapter Two). Another example similar to this is given in (30a–b):

(30)a. Wǒ chī-guò Zhōngguó cài le
    I eat-GUO China food LE
    'I have eaten Chinese food'
b. Wǒ chī-le Zhōngguó cài le
I eat-LE China food LE
'I have eaten Chinese food'

Imagine a person who had been anxious to try Chinese food and who has finally succeeded in having it. When coming out of a Chinese restaurant, he may say a sentence like (30a). Again guo in this utterance can not be interpreted as designating an Indefinite Past experience; it serves to indicate the speaker's view of the EVENT 'eating Chinese food' as REMOTE, accomplished and disposed of. LE in (30b), on the other hand, marks the END BOUNDARY of the EVENT in question, which is regarded as IMMEDIATE.

To recapitulate, the aspectual guo is better characterized as marking a departure from the BOUNDARY (necessarily then the END BOUNDARY) of an EVENT or a STATE, whereas LE, in contrast with guo, marks a proximate BOUNDARY (whether it is the BEGINNING or END BOUNDARY is dependent on the semantic content of Verbs in question). In other words, guo designates a REMOTE BOUNDARY whereas LE signals an IMMEDIATE BOUNDARY. Both types of variation in IMMEDIATE--REMOTE, in its nature and in its extent, are the products of the interaction of the semantics of IMMEDIATE--REMOTE with other co-occurring content, and in all this LE and guo retain <IMMEDIATE & BOUNDARY> and <REMOTE & BOUNDARY> as their respective characteristic meanings.

Finally, let us return to examine the incompatible cooccurrence of guo and EVENT Verbs like sǐ 'die' and lǎo
'(be) old'. Recall Ma's explanation that such an incompatibility is because of the impossibility of EVENT recurrence, as shown in sentences (2c-d) (repeated here):

(2) c. *Tā sǐ -guo
   he die-GUO
   'He died once'

d. *Tā lǎo -guo
   he old-GUO
   'He had once been old'

However, Chen (1979) points out that unrepeatable EVENTS like niángǐng '(be) young' in sentence (14) (reproduced below) can cooccur with guo, which is contradictory to Ma's claim:

(14) Nǐ yě niángǐng -guo
     you also young -GUO
     'You were young once (before)'

On the basis of our previous discussion, we now can better understand the aforementioned (in-)compatibility between non-recurrent EVENTS and guo. As stated earlier, it is not the property of recurrence of EVENTS that determines the possible use of guo. It is the possibility of one's departing from the STATE in question that is decisive. Take the EVENT/Verb sǐ 'die' for example. Conceptually, one can not depart from the STATE 'dying/being dead' to another STATE; there is no subsequent STATE. Hence, sǐ 'die' is not allowed to cooccur with guo, as shown in sentence (2c).

Likewise, the STATE lǎo '(be) old' has no subsequent STATE to permit one to depart from the STATE of 'being old'. As a result, lǎo '(be) old' is incompatible with guo and sentence
(2d) is ungrammatical. On the other hand, the STATE
niánqīng '(be) young', although unrepeatable just like the
EVENTS/STATES sǐ 'die/(be) dead' and lǎo '(be) old', allows
one to depart from it to the following STATE lǎo '(be) old',
and hence can cooccur with guo, as shown in sentence (14).

In conclusion, we propose that the notion of 'Departure
from BOUNDARY' and thus <REMOTE & BOUNDARY> provides the
most elegant characterization of the marker guo. Such an
interpretation of the element guo as we have demonstrated
above captures the pattern underlying its diversity. And
furthermore, when we consider both guo and LE, the latter of
which has been characterized as 'marking a BOUNDARY' and one
that is 'IMMEDIATE', we find that the two parameters togeth-
er suggest a semantic aspectual system for the language.
This system, in opposition to unmarked verbal forms, may be
visually presented as a matrix, two slots of which are
filled by LE and guo, as shown below:

<table>
<thead>
<tr>
<th></th>
<th>IMMEDIATE</th>
<th>REMOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONGRUENT WITH BOUNDARY</td>
<td>LE</td>
<td>guo</td>
</tr>
<tr>
<td>NONCONGRUENT WITH BOUNDARY</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

Figure 5

In Figure 5, BOUNDARY is modified by the notion of CONGRUEN-
CY. Here, CONGRUENCY implies the BOUNDARY coincides with an
EVENT BOUNDARY, PROPOSITION BOUNDARY, or turn-taking BOUNDARY to add some attention to it in the manner of a 'semantic suprasegmental'. This is the effect of LE and guo. NONCONGRUENCY implies a point/rupture/location that does not coincide with those NATURAL BOUNDARIES, and in its non-coincidence there is the implication of their presence (somewhere). These concepts will become clearer in the following section, as we examine the other two major Aspect markers that fill the remaining slots in Figure 5. These two markers are zai and zhe, which, in contrast with LE and guo, are NONCONGRUENT WITH BOUNDARY, but which imply the presence of BOUNDARY. In other words, while both LE and guo mark a BOUNDARY, with LE marking an IMMEDIATE BOUNDARY and guo a REMOTE one (hence, a 'Departure' from the EVENT by crossing its [END] BOUNDARY), both zai and zhe imply the existence of BOUNDARY. In our discussion, we will provide some examples with unmarked Verbs designating UNBOUNDED and, expectedly, even more REMOTE/DIFFUSE EVENTS, opposed to the BOUNDED/FOCUSSSED ones signalled by overt aspectual markers.

5.2 Zai and zhe

Because of the similarities and differences exhibited by the markers zai and zhe, we are going to examine these two elements together in this section. While zhe has long been treated as an Aspect marker, the preverbal element zai was not seriously studied as an aspectual marker until Su 1973, which is probably due to the fact that all the other
aspectual markers follow a main Verb while *zai* precedes it. However, since Su's identification of *zai* as an Aspect marker, there has arisen no consensus among linguists with respect to the treatment of *zai*. For instance, Henne et al. (1977.125) consider that 'Durative action may be expressed by means other than suffixation by -zhe. *Adverbs* [emphasis mine, LMH] like *zhengzai*, *zheng* or *zai* may be placed in front of the verb'. Evidently, Henne et al. (1977) adhere to the traditional view and regard the preverbal *zai* as an Adverb. Also, Chen (1979.42) mentions that 'Progressive action with extended duration must be expressed by another grammatical element *zai*' without further commenting what grammatical element *zai* is. In the present study, we will follow Su (1973) and many others in regarding *zai* as one of the major Aspect markers in Mandarin Chinese.

Like the above-mentioned Aspect marker *guo*, the aspectual *zai* has some homophonic homographs which can serve as a full Verb meaning 'exist/be (at, in, ...)’, a Coverb (cf. Roland Chang 1977) and a postverbal element. Examples follow:

(31)a. Tā zài Xiūshìdùn
    he ZAI Houston
    'He is in Houston'

b. Tā zài Láiì Dàxué gōngzuò
    he ZAI Rice University word
    'He works at Rice University'

c. Tā zhù zài Dé Zhōu
    he live ZAI Texas State
    'He lives in Texas'
d. Tā zài chàng-gē
   he ZAI sing -song
   'He is singing'

The zài's in the sentences above serve respectively as a
full Verb, a Coverb, a postverbal element and an aspectual
marker. In the present discussion, we are mainly concerned
with the aspectual zài which is syntactically different from
the others: the aspectual zài precedes Verbs (e.g. [31d])
while the others precede Nouns (e.g. [31a-c]). Below we
will begin with a brief review of the previous treatments of
the aspectual/preverbal zài and zhe suggested by Chao
(1968), Su (1973), Teng (1975 & 1979), Li and Thompson (1976
& 1981), Chen (1978), Kwan-Terry (1979b), Lin (1979) and
Smith (1985).

5.2.1 Previous treatments of zài and zhe

As we may expect, linguists have not agreed upon one
interpretation of zài and zhe. In the following sections,
we will examine some of this variety of opinion beginning
with Chao's treatment of these two elements.

5.2.1.1 Chao's treatment

Chao (1968) labels zhe as a 'progressive' suffix
marker, and gives a list of its numerous uses as shown below
(1968.248-51); but he does not explain how 'progressive' is
applicable in each case:

(a) Zhe can be attached to a main predicate with a senten-
tial particle ne.
(32) Tā dǎ -zhe diànhuà ne
   he hit-ZHE telephone NE
   'He is telephoning'

(b) Zhe can be preceded by a Stative Verb.

(33) Hái zǎo ne, tàiyáng hái xié -zhe ne
   still early NE sun still slant-ZHE NE
   'It's still early; the sun is still at a slant'

(c) Zhe can be suffixed to a Stative Verb to give a sense of causation.

(34) Tāng rè -zhe ne
   soup heat-ZHE NE
   'The soup is being heated'

(d) Zhe can be used in commands.

(35) Màn -zhe
   slow-ZHE
   'Slow!'

(e) Zhe can be attached to a Verb in a subordinate position to a following verbal expression.

(36) (Tā) yìng -zhe xīncháng zuò
   he harden-ZHE heart  do
   '(He) acted with a hardened heart;
   he acted mercilessly'

Such a treatment of zhe as Chao proposes does not satisfactorily characterize the semantic nature of the element. It is not clear what Chao (1968) intends by the term 'progressive suffix marker'. If he uses the term to indicate 'an ACTION in progress' (cf. Comrie 1976.32-40), his treatment is then inadequate since we cannot perceive any ACTION in progress in examples such as (33), (35) and (36). Clearly, Chao's treatment of zhe as a Progressive marker needs greater precision.

As for the preverbal zai, Chao (1968) does not recognize it as an Aspect marker. He treats the element in
sentences (37a)-(38a) as an Adverb which, according to him (1968), is a reduced form of \textit{zai} followed by a place word \textit{nar} 'there'. For instance (1968.333 & 772):

(37a). \textbf{Tā zai chī-zhe fàn}
\textit{he ZAI eat-ZHE rice}
'He is at eating a meal'

b. \textbf{Tā zài nàr chī-zhe fàn ne}
\textit{he ZAI there eat-ZHE rice NE}
'He is right there eating a meal'

(38a). \textbf{Tā zai wār ne}
\textit{he ZAI play NE}
'He is (a-)playing'

b. \textbf{Tā zài nàr wār ne}
\textit{he ZAI there play NE}
'He is right there playing'

Chao's treatment of \textit{zai} as a reduced form of \textit{'zai + place word'} is not totally insignificant; it may explain the incompatibility of the two \textit{zai} phrases in sentences (39a) and (40a) as well as the grammaticality of (39b-c) and (40b-c):

(39a). \textbf{*Tā zài nàr zāi chī fàn}
\textit{he ZAI there ZAI eat rice}

b. \textbf{Tā zài nàr chī fàn}
\textit{he ZAI there eat rice}
'He is eating there'
'He eats there'

c. \textbf{Tā zài chī fàn}
\textit{he ZAI eat rice}
'He is eating'

(40a). \textbf{*Tā zài nàr zāi kàn shū}
\textit{he ZAI there ZAI read book}

b. \textbf{Tā zài nàr kàn shū}
\textit{he ZAI there read book}
'He is reading books there'
'He reads books there'
c. Tā zài kàn shū
    he ZAI read book
    'He is reading books'

However, if Chao's interpretation of the preverbal zài as
being reduced from zài nàr were right, then (39b) and (40b)
would be equivalent to (39c) and (40c) respectively, but, as
indicated by the English glosses, this is not the case.

Chen (1978) has provided a different account of zài in
the above constructions, to which we will return in Section
5.2.1.4.

5.2.1.2 Su's treatment

While zhe has traditionally (e.g. Lü 1947 and Wang
1954) been treated as a Progressive Aspect marker indicating
an ACTION in progress, Su (1973) argues that zhe should be
regarded as a 'concomitative' Aspect marker because, accord-
ing to him (1973.45), zhe is to indicate an EVENT 'existing
or occurring concurrently with or accompanying what is de-
noted by the main verb in the sentence'. In other words, as
also described by Chu (1983.92), 'the verb with the -zhe
suffix denotes an action or event happening at the same time
as, but is subordinated to, what the main verb represents'.
For example (Su 1973.46):

(41)a. Tā zǒngshì kàn -zhe bāo    zǒu lù
    he always read-ZHE newspaper walk road
    'He always walks along reading newspapers'

b. Tā qí -zhe mǎ zhǎo mǎ
    he ride-ZHE horse look:for horse
    'He looks for a job while holding onto a job'
    'Lit. He looks for a horse while riding a horse'
Su considers that *zhe*, being attached to *kàn* 'read' in (41a) and *qí* 'ride' in (41b), indicates that the two ACTIONS 'reading' and 'riding' happen at the same time as the EVENTS manifested by the second Verbs, i.e. *zǒuliù* 'walk' in (41a) and *zhǎo mǎ* 'look for a horse' in (41b). Without the second verbal expression, sentences like (42a-b) may sound incomplete:

(42)a. Tā niàn-zhe shū ...
    he read-ZHE book
    'He is reading (a book) ...'

b. Tā xiǎng-zhe nǐ ...
    he think-ZHE you
    'He is thinking of you ...'

In short, Su (1973.50) considers that '*zhe* is attached to the verb in the subsidiary position and can not express a complete progressive meaning without the main action, which may be implied or overtly expressed. *Zhe* thus always plays the role of accompanying another action'. Accordingly, *zhe* is named by Su as a 'concomitutive' Aspect marker.

Concerning the preverbal element *zai*, as stated earlier, Su (1973) was the first to study it seriously as an aspectual marker. According to him (1973.56), *zai* is to 'express that the action of the verb is actually in progress'. For instance,

(43)Tā zài zuò liànxi
    he ZAI do exercise
    'He is doing the exercise'

Nevertheless, as we will see later, Su's treatment of *zai* is not complete and not satisfactory.
Su's treating *zhe* as a 'concomitative' Aspect marker and *zai* Progressive allows him (1973.67) to claim that the copresence of these two markers as shown in sentence (44) emphasizes the progressiveness of the 'continuing state of the action':

(44) *Ta zai zuò-zhe liànxi*  
  he ZAI do -ZHE exercise  
  'He is doing the exercise'

5.2.1.3 Teng's treatment

Teng (1975.128 and 1979.1), however, considers that there are two primary patterns in Mandarin Chinese indicating 'progressive'; in Teng's terms, 'non-stative' progressive and 'stative' progressive, signalled by *zai* and *zhe* respectively. According to Teng (1975.128), *zai* specifies the 'continuing/ongoing' nature of an EVENT whereas *zhe* marks an ACTION as 'a type of STATE' (or later in Teng 1979.1, he states that *zhe* signals an 'ongoing state'). The terms 'stative progressive' and an 'ongoing state' are rather misleading. How can a 'progressive' be stative? What does an 'ongoing state' denote? Even though later Teng (1979.10) adds that the term 'stative progressive' 'defines states that result from activities', it is still difficult to accept the above-mentioned terms as meaningful.

According to Teng (1979.8-10), the choice of the two Progressives is determined by Verb classes. Teng (1974.87-88) classifies Chinese Verbs into Action, State and Process Verbs:
Action verbs define various physical (mostly) as well as mental (to a lesser extent) activities, activities which the actor (or agent) can engage himself in voluntarily ... State verbs define quality or condition. The subject of state verbs (or patient) has no control over the quality or condition he (or it) is in ... Process verbs define a change from one state to another.

Teng (1979.8) remarks that while State and Process Verbs are generally incompatible with zai or zhe, Action Verbs can on the whole be 'modified' by the non-stative zai, except Verbs like zuò 'sit' and zhàn 'stand' which are also Action Verbs, but which are only compatible with zhe and not with zai. Teng calls these 'exceptional' Verbs 'Action-Locative' Verbs. The contrast between regular Action Verbs and Action-Locative Verbs is that, according to Teng (1979.8), 'the former refer to acts themselves, (whereas) the latter refer to the results of some activities'. As for the difference between Action-Locative Verbs and regular State Verbs, Teng (1979.9) states, 'while the subject of an action-locative verb can wilfully create ... a result, the subject of a regular state verb has no control over the state it is in.' Below are some examples of each Verb class, showing their compatibility or incompatibility with zai and zhe:

(45)a. Lǎoshī zai jiēshì wénfǎ
teacher ZAI explain grammar
'The teacher is explaining the grammar'

b. Xiǎo háizi zai kàn diànnshǐ
small child ZAI watch TV
'The children are watching TV'
(46) a. *Tā zai zhàn
he ZAI stand

b. Tā zhàn -zhe
he stand-ZHE
'He is standing'

(47) a. *Tā zai sǐ
he ZAI die

b. *Tā sǐ -zhe
he die-ZHE

(48) a. *Tā zai pàng
he ZAI fat

b. *Tā pàng-zhe
he fat -ZHE

Jiēshì 'explain' in (45a) and kàn 'watch' in (45b) are Action Verbs, and are both compatible with zai. Zhàn 'stand' in (46a-b) is an Action-Locative Verb (in Teng's term) and is compatible with zhe as in (46b), but not with zai as in (46a). Sǐ 'die' is a Process Verb and pàng 'fat' a State Verb, both of which are incompatible with zai or zhe, and hence (47a-b) and (48a-b) are ungrammatical.

As for Verbs like chuān 'put on/wear', they can take zai and zhe with sharp semantic contrast:

(49) a. Tā zai chuān duǎn -kù
he ZAI wear short-pant
'He is putting on shorts'

b. Tā chuān zhe duǎn -kù
he wear ZHE short-pant
'He is wearing shorts'

Teng (1979.3) postulates that chuān in (49a) and (49b) should be considered as the same Verb meaning 'wear' and that the opposition between non-stative and stative progressiveness must be posited in the grammar. Such a postulation
as Teng suggests appears to be rather ad hoc (although, as
we will see in Section 5.2.2, we also have a one-Verb inter-
pretation) and does not really characterize the nature of
Verbs like chuān 'put on/wear', which will be discussed
later.

Although State Verbs are regarded as incompatible with
zai or zhe, Teng (1979) notices that there are cases with
intrinsic State Verbs cooccurring with zhe, as shown below
(1979.11):

(50)a. Zhāngsān dī -zhe tou zǒu -guò -qù
Zhangsan low-ZHE head walk-over-go
'Zhangsan walked over with his head lowered'

b. Wáng Xiǎojie hóng-zhe liǎn diǎn-le-diǎn tóu
Wang Miss red-ZHE face nod -LE-nod head
'Miss Wang nodded with her face all red'

Teng explains that such copresence of State Verbs (dī 'low'
in [50a] and hóng 'red' in [50b]) and the element zhe
signals 'transient states'. In addition, Teng examines
sentences with two Action Verbs which are juxtaposed and the
first of which is suffixed by the stative progressive zhe.

For instance (Teng 1979.7):

(51)a. Tā xǐhuān tāng-zhe kàn shū
he like lie -ZHE read book
'He likes to read lying down'

b. Tā nénggòu bào -zhe ní zǒu(-lù)
he can hold-ZHE you walk-road
'He can walk holding you'

Teng claims that 'the relationship between the two VP's
[i.e. Verb Phrase, LMH] concerned is a temporal one, i.e.,
the completion of the second VP is defined within the
duration of the first VP. Therefore, the function of zhe is still basically one of stative progressive' (1979.3). Here, we are not certain what Teng means by 'basically one of stative progressive'. Besides, it is not always the case that in sentences with two Action Verbs, the completion of the EVENT expressed by the second Verb must be within the duration of the EVENT manifested by the first Verb. Consider,

(52)a. Tā kàn -zhe báo    chī fàn
he read-ZHE newspaper eat rice
'He is eating/eats while reading newspapers'

b. Tā tīng -zhe shòuyīnji zuò gōngkè
he listen-ZHE radio    do homework
'He is doing/does homework while listening to the radio'

It is very likely that both EVENTS in (52a) or (52b) have the same length of duration or even the first EVENT terminates before the completion of the second, which contradicts what Teng postulates above.

In sum, Teng’s treatment of zài and zhe is very insightful and stimulating, and has been subsequently adopted by many linguists, such as Smith (1985), whose treatment of the two markers will be reviewed later. However, as we have seen above, Teng’s uses of the terms, such as 'ongoing state' and 'stative progressive', and his explanations like 'an ACTION can be treated as a type of a STATE' (Teng 1975.28) are inadequate. Moreover, consider the following two sentences provided by Teng (1975.128) as instances of 'progressive' patterns in the language:
(53)a. Tā zài chī fàn
    he ZAI eat rice
    'He is eating'

b. Tā chī zhe fàn ...
    he eat ZHE rice
    'He is eating ...'

If Teng's characterization of zài and zhe as mentioned above were right, perceiving sentence (53b) with the ACTION Verb chī 'eat' suffixed by zhe as describing a STATE would certainly require further explanation, to which we will return later.

5.2.1.4 Chen's treatment

Like Su (1973) and Teng (1979), Chen (1978) regards both zài and zhe as aspectual markers. She (1978.84) calls zài an 'imperfective' marker and zhe a 'progressive' marker. The question we may ask here is whether 'progressive' is a kind of 'imperfective' (cf. Comrie 1976.32-40). According to Chen (1978.83), both signal 'the progress of an action' but differ 'in their denotations of temporal contours as well as relative distribution'. With respect to their distribution, zài precedes a Verb and zhe follows (or is attached to) a Verb. As for the temporal contour, consider the following examples (Chen 1978.83):

(54)a. Tā zài kū
    he ZAI cry
    'He is crying'

b. ?Tā kū -zhe
    he cry-ZHE
(55a. Tā hái zài kū
he still ZAI cry
'He is still crying'

b. ?Tā hái kū -zhe
he still cry-ZHE

(56a. *Tā zài kū shuō ...
he ZAI cry say

b. Tā kū -zhe shuō ...
he cry-ZHE say
'He said when crying ...'

According to Chen (1978.83), the time reference in (54a) vs. (56b) together with the compatibilities with the time Adverb hái 'still' ([55a] vs. [55b]) indicate that 'the temporal contour marked by zài is wider in range and less precise than that marked by the suffix -zhe'. Chen further states that 'since the temporal denotations of the two markers are overlapping rather than contrasting, they may cooccur to express emphasis' (1978.83), which is similar to Su's claim mentioned in Section 5.2.1.2. Consider,

(57) Tā zài kū zhe
he ZAI cry ZHE
'He is crying'

In differentiating zài from zhe, Chen (1978.84) adds, 'zài can be used for actions in actual progress as well as habitual activities, whereas -zhe is limited to actions in actual progress only.' To support this point, she cites the following sentences (1978.84):

(58a. Tā xiànzài zài lù -biān bǎi shū -tān
he now ZAI road-side place book-stand
'He is now making a living by selling books by the roadside'
b. Tā xiànzuài zài lù -biān bǎi -zhe shū -tān ne
   he now ZAI road-side place-ZHE book-stand NE
   'At this moment he is attending to his books by the roadside'

(59)a. Tā zài shàng dàxué
   he ZAI attend university
   'He is at the university'

b. Tā shàng -zhe dàxué
   he attend-ZHE university

In cases with zài and a Verb which have a place word in between, as in sentences (39b)-(40b), and which do not, as in (39c)-(40c) (repeated below):

(39)b. Tā zài nàr chī fàn
   he ZAI there eat rice
   'He is eating there'
   'He eats there'

c. Tā zài chī fàn
   he ZAI eat rice
   'He is eating'

(40)b. Tā zài nàr kàn shū
   he ZAI there read book
   'He is reading books there'
   'He reads books there'

c. Tā zài kàn shū
   he ZAI read book
   'He is reading books'

Chen proposes that zài in (39c)-(40c) should be an Imperfective Aspect marker, and that zài in (39b)-(40b) should have 'a two-fold function: it is an aspect marker of the verb, marking an active ongoing commitment, i.e., the actor is engaged in performing an action which is durable ..., as well as a preposition in the place adverbial' (1978.81). A similar claim is also made by Gwang-tsaí Chen (1979.128-31).

Since the purpose of her paper is to investigate the
characteristics of preverbal and postverbal locatives, Chen (1978) does not further discuss other properties of the two aspectual markers in question.

5.2.1.5 Kwan-Terry's treatment

Kwan-Terry (1979b) shares Teng's claim that there are two Progressive Aspect markers in Mandarin Chinese. In summarizing the properties of zai and zhe, Kwan-Terry (1979b.231) states that 'zai is used to indicate an action in active progress, whereas -zhe is used to indicate the continuance of a state which may be a state resulting from the completion of an action or simply a state of being which does not essentially involve an active action, or it is used to lead one to see an action in progress as a state of action sustained.' What she points out here can be exemplified by the following sentences (Kwan-Terry 1979b.215-26):

(60)a. Chēhuò fāshēng-de shíhòu, tāmen zai shuōxiào car:accident happen -DE time they ZAI joke 'When the car accident happened, they were joking'

b. Kàn! Nà -zhī mǎ zai chǐ cǎo
look that-Cl horse ZAI eat grass 'Look! That horse is eating grass'

c. Wàimiàn zai xià yǔ
outside ZAI down rain 'It's raining outside'

(61)a. Zhuōzi-shang bǎi -zhe yì -píng huā
table -on place-ZHE one-Cl flower 'On the table is placed a vase of flowers'

b. Tiān hái zǎo -zhe, tàiyáng hái xié -zhe
day still early-ZHE sun still slant-ZHE 'The day is still early and the sun is still in a slanting position'
According to Kwan-Terry, *zài* in sentences (60a-c) indicates an *ACTION* in active progress at a specific time which is explicitly stated (e.g. [60a]) or implicitly referred to (e.g. [60b-c]). Sentence (61a) with *zhe* designates the continuance of a *STATE* resulting from the completion of an *ACTION* manifested by the same Verb, which then excludes the so-called Resultative Verb Complement Construction. Sentence (61b) with *zhe* refers to a *STATE* without involving a preceding *ACTION* and thus designates 'a stative or descriptive quality' (Kwan-Terry 1979b.225); and (61c) with an *ACTION* Verb marked by *zhe* in a subordinate position to a main Verb, as Kwan-Terry (1979b.227) interprets it, 'carries a certain descriptive or stative quality and leads one to see an action in progress as a state of action sustained'.

In addition, Kwan-Terry points out that a Verb suffixed by *zhe* may also appear as the main Verb in a sentence, as shown below (1979b.226):

(62) *Nà tiān wānshang, tāmen liǎng rén zài hǎibīn mǎnù -zhe mèngxiǎng-zhe měimān -de jiānglái* stroll-ZHE dream -ZHE beautiful-DE future
That night, the two of them strolled (were strolling) along the seaside, and dreamed (were dreaming) of their beautiful future'

Kwan-Terry explains that the main Verb *mèngxiǎng* 'dream' with *zhe* in (62) depicts a scene rather than an *ACTION*. She further comments that 'in prose writing in particular, a
sentence where the main verb is marked by -zhe is used more for background description than for plot-advancing narration. This again points to the descriptive quality in -zhe' (1979b.226). Clearly, Kwan-Terry (1979b) has a more thorough study on the element zhe, and she is quite right in pointing out the descriptive quality of zhe (where zhe signals backgrounded information). Such a treatment appears to be better than all the above-mentioned. However, the same problems which appear in Teng 1975 and Teng 1979, such as using misleading terms and inadequate descriptions, are present here as well. For instance, 'to see an action in progress as a state of action sustained'. In what sense can an ACTION in progress be a STATE? Also, 'the group of stative verbs or adjectives which are totally repugnant to zai but some of which are used with -zhe to indicate the continuance of a state' (Kwan-Terry i979b.230). If an EVENT is already STATATIVE, why does it need zhe to indicate the continuance of the state? Evidently, if Kwan-Terry's interpretation of zhe were correct, either the verbal semantics requires rethinking or the nature of zhe needs to be re-examined, or perhaps both.

5.2.1.5 Li and Thompson's treatment

Like Teng (1979) and Kwan-Terry (1979b), Li and Thompson (1981.217) consider that Mandarin has two Imperfective (or Durative, in their term) markers zai and zhe, the use of which depends on the semantic content of the
cooccurring Verbs. Basically, their analysis of zai and zhe is similar to Teng's (1979) and Kwan-Terry's (1979b) except for the ways they classify Verbs and the names they choose for verb types. Since we have already presented Teng's (1979) and Kwan-Terry's (1979b) interpretations of zai and zhe, Li and Thompson's treatment of the two markers will not be discussed in detail here. We will simply make some remarks on their treatment.

According to Li and Thompson (1981.217), activity Verbs (corresponding to Teng's 'Action Verbs') 'generally signal the active participation and involvement of an animate subject in an event' and only these Verbs can take zai to indicate the Durative Aspect while non-activity Verbs cannot. Examples follow (Li and Thompson 1981.218-19):

(63)a. Zhāngsān zài dǎ Lìsì
Zhangsan ZAI hit Lisi
'Zhangsan is hitting Lisi'

b. Lìsì zài jiēshī wénfǎ
Lisi ZAI explain grammar
'Lisi is explaining grammar'

(64)a. *Tā zài pāng
he ZAI fat

b. *Wǒ zài zhīdào nèi -jiān shì
I ZAI know that-C1 matter

However, observe the following sentences with inanimate Subjects yet still compatible with the marker zai:

(65)a. Chuán zài chén
ship ZAI sink
'The ship is sinking'
b. Dìqiú zài xuánzhuǎn
earth ZAI rotate
'The earth is rotating'

Li and Thompson's statement mentioned above apparently requires modification.

As for Verbs that can take zhe, Li and Thompson (1981.219-20) consider that 'Verbs of posture' (Teng's 'Action-Locative' Verbs) which 'denote postures or physical disposition of an entity at a location' and activity Verbs which can signal STATES associated with the activities in question can be suffixed by zhe. Observe (Li and Thompson 1981.219-21):

(66)a. Tā zài fángzi-lǐ zuò-zhe
he ZAI house -in sit-ZHE
'He is sitting in the house'

b. Chē zài wàimiàn tíng-zhe
car ZAI outside stop-ZHE
'The car is parked outside'

(67)a. Tā zài ná bāozhǐ
he ZAI take/hold newspaper
'He is taking/picking up newspapers'

b. Tā ná -zhe liàng-běn shū
he take/hold-ZHE two -Cl book
'He is holding two books'

Verbs zuò 'sit' in (66a) and tíng 'stop' in (66b) are Li and Thompson's 'Posture Verbs', hence the compatibility of zhe with these Verbs. As for the Verb ná 'take/hold', in (67a) with zài, it designates an ACTIVE EVENT 'taking'; in (67b) with zhe, it indicates a RESULTANT STATE from the ACTIVE ACTION 'taking' and therefore the English gloss 'holding'.

However, Li and Thompson (1981) notice that neither can
all activity Verbs take zhe to indicate 'STATES' nor can all non-activity Verbs co-occur with zhe, as exemplified respectively below (1981.222):

(68)a. ?Zhângsân tiàò zhe
Zhângsàn jump ZHE
b. 'Tâ pàng-zhe
he fat -ZHE

Moreover, Li and Thompson (1981 as well as 1976) consider that in complex sentences, zhe can be used in the subordinate clause with many different types of Verbs to signal a background for another EVENT. Below are examples with each type of Verbs mentioned above (Li and Thompson 1981.224):

(69)a. Tâ tîng -zhe shōuyīnjī shuǐ -zháó le
he listen-ZHE radio sleep-achieve LE
'He fell asleep while listening to the radio'
b. Tâ tàng -zhe kàn bào
he lie:down-ZHE read newspaper
'He was reading the newspaper while lying down'
c. Tâ xié -zhe yán xiào -zhe kàn wǒ
he slant-ZHE eye smile-ZHE look I
'Smiling, he looked at me out of the corner of his eye'

We will return to this backgrounding characteristic of zhe in Section 5.2.2.

5.2.1.6 Lin's treatment

Lin's analysis of zài and zhe is quite similar to the last three approaches, i.e. Teng's (1979), Kwan-Terry's (1979b) and Li and Thompson's (1981). However, with regard to the terminology used for the two markers in question, Lin (1979) seems to have made a better choice. According to Lin
(1979.81), *zai* is a marker of 'progressiveness' and *zhe* a marker of 'durativeness': *zai* indicates an action in active progress, whereas *zhe* indicates the continuance of a state which may be resulting from the operation of an action or simply a state of being which does not essentially involve any active action' (Lin 1979.141), which is very much similar to Kwan-Terry's characterization of the two markers. Lin thus adds, 'Although both *zai* and *zhe* are marked for *durativeness*, yet the former differs from the latter by being marked for another feature, active *progressiveness*. *Zhe* ... carries a semantic feature of stative *durativeness*.' Lin further points out that *progressiveness* implies *durativeness*, which can be diagrammed as follows (Lin 1979.141):

```
B(beginning)         E(nd)
               progression
                 ↓
               duration
```

**Figure 6**

In his analysis of *zhe*, Lin (1979) lists various 20 contexts in which *zhe* can be used, which will not be discussed in detail here. Although Lin's description of the uses of *zhe* is rather comprehensive and each use does reflect what he characterizes as the property of the element, i.e. 'durativeness', his analysis of *zhe* also has some problems. For instance, even if it is possible to interpret *zhe*, when attached to an ACTION Verb, as indicating a sustained
'STATE', it seems redundant/inappropriate to say that when attached to a STATIVE Verb, zhe designates a sustained STATE as well. Why does a STATE need to be 'sustained' and is then grammatically signalled by the marker zhe? This certainly requires some explanation.

As for the marker zai, Lin (1979.123-25) characterizes it as indicating an ACTION in active progress at a specific time, explicitly or implicitly stated. Furthermore, Lin (1979.131) notices that an ACTION in progress marked by zai 'is incidental, contingent, and temporary but by no means momentary.' Compare the following sentences:

(70)a. Tā zai zuò shénme shí?  
he ZAI do what matter  
'What is he doing now?'

b. Tā zai jiāo -shū  
he ZAI teach-book  
'He is teaching'

(71)a. Tā zuò shénme shí?  
he do what matter  
'What does he do (for a living)?'

b. Tā jiāo -shū  
he teach-book  
'He teaches'

Lin (1979.132) remarks that while sentence (71b) with an unmarked Verb jiāo shū expresses a person's usual occupation—teaching, sentence (70b) with zai designates that teaching is a temporary job and that he very possibly will change his job. Such a temporary characteristic of zai is quite important and will be elaborated in our later discussion.
5.2.1.7 Smith's treatment

The last treatment of zai and zhe we are going to examine is Smith's (1985). Agreeing with Teng (1979), Smith (1985) claims that the language has two 'imperfective viewpoint aspects' signalled by zai and zhe which contrast semantically and distributionally. Following Teng (1979), Smith (1985.17) regards zai as an active Imperfective opposed to zhe which is a stative, and she considers that the semantic difference between these two Imperfectives 'arises from the interaction of particular situation types [i.e. Verb types or verbal semantics, in our term, LMH] and the imperfective viewpoint' (1985.14), which will be briefly discussed below.

According to Smith (1985.17), the Imperfective signalled by zai suggests 'progression towards an endpoint' and only Activity and Accomplishment Verbs which indicate EVENTS having final endpoints can appear with this element, and not Achievement or Stative Verbs which manifest EVENTS with no endpoints. Examples of each Verb type with zai, grammatical or ungrammatical, are given as follows (Smith 1985.15-17):

(72)a. Tāmen zài dǎ qiú (Activity)
they ZAI play ball
'They are playing ball'

b. Zhāngsān zài zǒu -dào xuéxiào qù (Accomplishment)
Zhangsan ZAI walk-to school go
'Zhangsan is walking to school'

c. Tā zài yǐng sài pǎo (Achievement)
he ZAI win race run
'He is winning the race'
As the above examples show, what Smith regards as an Activity Verb (dǎ 'play' in [72a]) and as an Accomplishment Verb (zǒudào 'walk to' in [72b]) is compatible with zài, and hence sentences (72a-b) are grammatical. Verbs like yíng 'win' in (72c) and yǒu 'have' in (72d) are Achievement and Stative Verbs respectively, and thus they are not allowed to cooccur with zài. In short, zài is interpreted by Smith (1985) as marking EVENT 'develop(ing) in successive stages, progressing ... towards an endpoint'.

As for zhe, Smith agrees with Teng that it signals 'stative situations (that) are stable and unchanging: they are homogenous and do not have successive stages' (1985.21). With respect to the distribution of zhe, Smith has an observation very similar to Teng's (1979) and Kwan-Terry's (1979b), i.e., zhe is regarded as appearing (Smith 1985.18):

(a) with so-called "locative" verbs (a class involving stative situations such as 'sit, stand, lie');

(b) with many otherwise non-stative verbs with related, stative meanings;

(c) with non-stative verbs generally in subordinate sentences, with a backgrounding interpretation.

Further, Smith (1985.21) suggests that zhe presents a 'period'--a moment or interval, whereas zài a 'stage'. Although the terms 'period' and 'stage' used by Smith are not very clear to us, there is one significant point we may
draw from Smith's talk of 'endpoints': both zai and zhe imply the presence of BOUNDARY, which will be elaborated in Section 5.2.2.

5.2.1.8 Recapitulation

To complete our review of the previous major treatments of zai and zhe, let us recapitulate and present some characteristics common to most of the aforementioned treatments:

(a) Although linguists have been using different terms in analyzing the two markers zai and zhe, both markers have generally been treated as Imperfective Aspect markers (in Comrie's [1976] sense). However, the terms used by linguists are sometimes very misleading. For instance, Teng (1975) calls zhe a 'stative Progressive marker' or (1979.1) treats it as signalling an 'ongoing state'. How can a Progressive be stative? And how can a STATE be ongoing? Also, some of their descriptions appear to be inadequate. For example, Kwan-Terry (1979b.230) claims that a STATIVE Verb suffixed by zhe indicates 'the continuance of a state'. Why does a STATIVE EVENT need zhe to indicate the continuance of a STATE since a STATIVE Verb already depicts a STATE?

(b) Most of the previous treatments of zai and zhe suggest that the choice between zai and zhe is determined by Verb types. Linguists have different ways in classifying Chinese Verbs (cf. Teng 1974, Chu 1983 and Smith 1985), but generally they agree that zai can only cooccur with ACTIVE Verbs and zhe with a wider range of Verbs. Further, most of them consider that the zai construction manifests an ACTIVE ongoing EVENT and the zhe pattern indicates STATIVITY.

(c) Some linguists such as Kwan-Terry (1979b), Li and Thompson (1981) and Smith (1985) point out the backgrounding (or descriptive) quality in zhe. Also, Chen (1978), Teng (1979), Lin (1979) and Chu (1983) notice the zai construction not only designates an ongoing ACTION but sometimes describes a habitual activity/
profession/state of being.

To sum up, although most of the earlier treatments of zai and zhe, as presented above, have provided explanations for the uses of the two elements, none of them are fully satisfactory, since they fail to adequately integrate the properties of these two markers. Below we will give an alternative and more coherent account of these aspectual markers on the basis of the notion BOUNDARY (specifically that of NONCONGRUENT WITH BOUNDARY) and the IMMEDIATE--REMOTE opposition.

5.2.2 Nature of zai and zhe

In our discussion of the aspectual markers LE and guo, we posited two fundamental principles that can better characterize the nature of these two markers; that is, the notion of BOUNDARY and the opposition of IMMEDIACY--REMOTENESS. Whereas LE precisely marks a BOUNDARY (i.e. the proximity of BOUNDARY), and hence also IMMEDIACY, guo signals 'Departure from BOUNDARY' and hence the REMOTENESS of that bounded content. The two principles in point can also be used in accounting for the other two major Aspect markers in the language, zai and zhe. The four markers together then form a semantic system opposed to no marker, as illustrated in the following matrix (Compare it with the one in Figure 5):
<table>
<thead>
<tr>
<th>IMMEDIATE</th>
<th>REMOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOUNDED/FOCUSED:</strong></td>
<td><strong>LE</strong></td>
</tr>
<tr>
<td><strong>CONGRUENT WITH BOUNDARY</strong></td>
<td><strong>zai</strong></td>
</tr>
<tr>
<td><strong>NONCONGRUENT WITH BOUNDARY</strong></td>
<td></td>
</tr>
<tr>
<td><strong>UNBOUNDED/DIFFUSE:</strong></td>
<td><strong>∅</strong></td>
</tr>
</tbody>
</table>

**Figure 7**

Below we will examine the element *zai* with respect to its property of BOUNDARY implication.

5.2.2.1 BOUNDARY implication of *zai*

In order to show that *zai* implies the existence of a BOUNDARY (or BOUNDARIES), first let us consider the following sentences with *zai* in spatial expressions (73a-d):

(73)a. *nǐ* -de shū  *zài* zhuōzī-šàng-biān
   you-DE book ZAI desk -on -side
   'Your book is on the desk'

b. *nǐ* -de shū  *zài* zhuōzī-xià-biān
   you-DE book ZAI desk -under-side
   'Your book is under the desk'

c. *nǐ* -de shū  *zài* zhuōzī-lì-biān
   you-DE book ZAI desk -in-side
   'Your book is inside the desk'

d. *nǐ* -de shū  *zài* zhuōzī-páŋ -biān
   you-DE book ZAI desk -beside-side
   'Your book is beside the desk'

As shown in the above examples, in addition to *zai*, 24 localizers are used in the spatial expressions. Comparing sentences (73a-d), we notice that the semantic contrast in these sentences are due to the different localizers each sentence has; that is,  *šàng*(-biān) 'up/on',  *xià*(-biān)
'down/under', lǐ(-biān) 'inside', páng(-biān) 'beside' respectively. Zài by itself does not specify the actual location of an object, here nǐ-de shū 'your book'. In other words, zài merely implies the existence of a confinement, and the localizer specifies the location of an object with respect to that confinement. Further, the term 'location' can be used in a broader sense, not limited to the actual places. For instance (Central Daily News, Dec. 3, 1986):

(74)a. ... zài Wǔyè Lìrén zhōng tiǎo dà -liáng ZAI midnight beauty within carry big-beam '... as the main characters in (the movie) "Midnight Beauty"...'

b. ... zài miáoshù rénshēng-de piànduàn jí ZAI describe life -DE fragment and yǒuqìng fāngmiàn friendship respect '... with respect to describing fragments of life and friendship...'

c. Zài Mài Dāngxióng-de jiānzū -zhī xià ZAI Mai Dangxiong-DE supervise-DE under 'Under the supervision of Mai Dangxiong ...'

Although no actual spatial sense can be perceived in the above examples, zài is used to imply the existence of a confinement while the localizers zhōng in (74a), fāngmiàn in (74b) and xià in (74c) specify the exact relationship between two objects, situations, etc.

Moreover, zài can appear in temporal expressions, as illustrated in (75a-d):

(75)a. Wǒ zài wǔ -diǎn -qián chī fàn I ZAI five-o'clock-before eat rice 'I eat/ate before five'
b.  Wǒ zài wǔ -diǎn -hòu chǐ fàn
   I ZAI five-o'clock-after eat rice
   'I eat/ate after five'

  c.  Wǒ zài wǔ -diǎn -de-shíhòu chǐ fàn
    I ZAI five-o'clock-DE-time eat rice
    'I am/was eating at five'

  d.  Wǒ zài wǔ -diǎn chǐ fàn
    I ZAI five-o'clock eat rice
    'I eat/ate at five'

Again, in temporal expressions in (75a-d), zài does not by itself show the precise temporal relationship such as anteriority, posteriority or simultaneity. An exact temporal relationship is, however, indicated by localizers (in Chao's [1968] sense) such as qián 'before', hòu 'after' or -de shíhòu 'when', as presented in sentences (75a-c). Without localizers, zài and a temporal expression merely refer to a point of time (e.g. [75d]) or an interval of time (e.g. [75e]):

(75)e.  Wǒ zài shàng-ge yuè xué Yǐngwén
      I ZAI last -Cl month study English
      'I studied English during last month'

Apparently, it is the cooccurring localizer that specifies the temporal relationship of the EVENT in question to the time expressed. Similar to the usage of 'location', 'time' here is not restricted to the exact clock time; it can be a relative time when another EVENT takes place. Examples follow (Central Daily News, Dec. 3, 1986):

(76)a.  Zài Lí Dàwèi dú -jù hūl -yǎn fājué tāmen-zhī
       ZAI Li Dawei alone-own wise-eye excavate they -DE
       hòu ...
       after
'After Li Dawei, who alone owns discerning eyes, excavated them, ...' 

b. Zài chǔ lǐ zhè -bù xì shí, ...
ZAI deal this-cl movie time
'When dealing with this movie, ...'

Unlike a space/location, which may have multiple dimensions and hence more BOUNDARIES, and which can be specified by various localizers, such as shàng 'on/up', xià 'under/down' and páng 'beside', time can either be a point (and hence no need to talk about BOUNDARY) or a span which has only one dimension with two ENDS and thus only three ways of describing BOUNDARIES, i.e. qián 'before', zhōng/shí(-hou) 'during/mid' and hòu 'after'. Consequently, zài in temporal expressions is not obligatorily present. It can be absent without obscuring the temporal relationship as long as the localizer is present. In sum, zài in these two constructions implies a kind of BOUNDARY, spatial or temporal, and the cooccurring localizer specifies the relationship.

The semantic property of zài in the spatial and temporal expressions mentioned above, i.e. implying the existence of BOUNDARY, can also be found in the preverbal/ aspectual zài. Before we elaborate this point, let us examine the following sentences:

(77)a. Tā (tiān-tiān) chī miàn
he day -day eat noodle
'He eats noodles (every day)'

b. Tā zài chī miàn
he ZAI eat noodle
'He is eating noodles'
(78)a. Tā (tiān-tian) tiào shéng
he day -day jump rope
'He jumps (a) rope (every day)'

b. Tā zài tiào shéng
he ZAI jump rope
'He is jumping (a) rope'

(79)a. Tā (tiān-tian) tíng shōuyīnjī
he day -day listen radio
'He listens to the radio (every day)'

b. Tā zài tíng shōuyīnjī
he ZAI listen radio
'He is listening to the radio'

Comparing sentences in each pair above, we notice that unmarked Verbs (here, without the preverbal zài) express general truth or describe a person's daily activity (e.g. [77a]--[78a]--[79a]), the 'zài + Verb' form describes an ACTION going on at this moment, as indicated in the English glosses. As expected, zài is therefore treated as a Progressive Aspect marker by most linguists as we have seen in the preceding sections.

However, as noted, e.g. by Teng (1979), some EVENTS/Verbs with the preverbal zài may give more than one reading. Consider:

(80)a. Tā jiāo Yīngwén
he teach English
'He teaches English (for a living)'

b. Tā zài jiāo Yīngwén
he ZAI teach English
'He is teaching English (in class now)'
'He is teaching English (for a living now)'

(81)a. Zhāngsān xiūlǐ qīchē
Zhangsan repair car
'Zhangsan repairs cars (for a living)'
b. Zhāngsān zài xiū lǐ qīchē
   Zhangsan ZAI repair car
   'Zhangsan is repairing a car (he is now sweating
   and looks dirty)'
   'Zhangsan is repairing cars (for a living now)'

(82)a. Wǒ fùqīn mài yīfu
       I father sell clothes
       'My father sells clothes (for a living)'

b. Wǒ fùqīn zài mài yīfu
       I father ZAI sell clothes
       'My father is selling clothes (he's dealing with
       customers now)'
       'My father is selling clothes (for a living now)'

As indicated in the English glosses, sentences (80b)-(81b)-(82b) have two readings: one describes an ACTION going on at
the speech moment (or at the Reference Time if there is one)
like (77b)-(78b)-(79b), and the other, an activity 'over a
period of time inclusive of the time of utterance' (Teng
1979.2), more or less a 'habitual interpretation', as Teng
characterizes it. This contrast is also noted by Chu (1983)
and Lin (1979). Chu (1983.94) comments that 'The progres-
sive form [i.e. zài + Verb] ... indicates an action going on
at a given point of time ... [It] may also represent a state
of being which is true at a given time.' Here, Chu's second
interpretation of the 'zài + Verb' form as representing 'a
state of being', as expected, more or less corresponds to
Teng's 'habitual interpretation'; that is, both indicate
that the EVENT in question will last for a period of time,
and hence gives the sense of 'habitual EVENT' or 'a state of
being'. This is also similar to Lin's (1979.132) claim that
sentences like (80b)-(81b)-(82b) with zài describe a
person's job, particularly a temporary job, and the person very possibly will change his job. To show the contrast, Lin adds that the unmarked Verbs in (80a)-(81a)-(82a) describe general truth expressing a person's daily activity or a person's profession, without indicating whether he will change his habit or his job, although most likely the person will continue the activity named. To sum up, sentences with zai are usually interpreted as indicating an ACTION going on at the speech/reference time, but sometimes they are interpreted as designating 'a habitual activity over a period of time' (Teng 1979), 'a state of being' (Chu 1983) or 'a temporary profession' (Lin 1979). As we can expect, the first reading leads linguists to continue treating zai as a Progressive Aspect marker, but the second reading (which designates a person's habitual activity/a state of being/a temporary occupation and which allows the AGENT/Subject not to be engaged in the activity in question at the speech moment) leaves the analyst some indeterminacy with respect to the interpretation of the marker zai. Although it is still treated as a Progressive Aspect marker by most linguists such as Chu (1983), Lin (1979) adds that zai marks progressiveness which implies durativeness. Before we characterize the nature of the preverbal zai, let us examine some more sentences.

Comparing sentences (77)-(79) with (80)-(82), one may reasonably assume that zai can be treated as a Progressive
Aspect marker (as conventionally interpreted) and that the
semantic content of Verbs determines whether an utterance
has one or two readings. However, compare the sentences
given in (83)-(84):

(83)a. Tā zài xiě xìn
   he ZAI write letter
   'He is writing a letter'

   b. Tā zài xiě zhuān -lán
   he ZAI write special-column
   'He is now writing an article for a special column
   (in a newspaper)'
   'He is a columnist (now)'

(84)a. Tā zài xiūlǐ wǒ-de shōuyīnjī
   he ZAI repair I -DE radio
   'He is repairing my radio'

   b. Tā zài xiūlǐ shōuyīnjī
   he ZAI repair radio
   'He is now repairing a radio'
   'He is a radio repairer (now)'

With the same Verb xiě 'write', (83a) gives only one
reading, 'He is writing a letter', i.e. an activity is going
on at the speech moment, whereas (83b) allows two interpre-
tations: (i) 'He is now writing an article for a special
column', or (ii) 'He is working as a columnist now', but he
does not necessarily engage himself in writing at this
moment. Unlike the situation in (77b)-(82b), in (83a-b) the
presence of zài alone or the interaction of zài and verbal
semantics does not explain why sentence (83a) has only one
reading and (83b) has two since both sentences have the same
Verb xiě 'write' and the element zài. As we can see, it is
the Object zhuānlán 'special column' and some extra-
linguistic factors (e.g. xiě zhuānlán 'writing a special
column in a newspaper' can be a profession in a society) that allow such alternate interpretations. Similarly, (84a) and (84b) have the same Verb xiǔlǐ 'repair' and the marker zài, but the two sentences give one and two readings, respectively. Again, it is the Objects wǒ-de shōuyīnjī 'my radio' in (84a) and shōuyīnjī 'radio' in (84b) that explain the variation between one and two readings of the utterances in question.

As we may expect, while a sentence with the element zài may sometimes be interpreted as describing an ongoing ACTION, and sometimes as expressing both an ongoing ACTION and a habitual ACTION/profession/state of being, there are cases with the aspectual zài that only give an interpretation of a profession/state of being. In illustration of this, compare the following sentences:

(85)a. Tā zài shàng -kè  
    he ZAI attend-class  
    'He is in class now'

b. Tā zài shàng -xué  
    he ZAI attend-school  
    'He is attending school'

While (85a) designates an ongoing EVENT at this moment—the person is now physically in class and having lessons, (85b) expresses that he is now a student even though he is not necessarily on his way to school or in class now.

Evidently, all things equal, it is the cooccurring Object that configures the EVENT in terms of PERIODICITY, and it is the resulting value(s) of PERIODICITY which play(s) an
important role in the choice of interpretations an utterance may have.

The above discussion of sentences with *zai* is to show that different readings of these sentences are not owing to the element *zai* or the semantic content of Verbs alone; rather, the aspectual sense is dependent on the interaction among *zai*, different verbal semantics and various features of Objects. This, of course, repeats the observations above on the apparent semantic variation of *guo*. Understanding this point, we now may ask what function the preverbal *zai* has; or in other words, what is the real nature of the preverbal *zai*. Before we answer this question, let us recall Smith's (1985) discussion of *zai* mentioned in Section 5.2.1.7. According to Smith (1985.15-17), 'zai presents a situation with neither initial nor final endpoints', but it suggests the progression of an EVENT 'towards an endpoint'--the END BOUNDARY of an EVENT. Of course, the BEGINNING BOUNDARY in this case must necessarily exist. In other words, *zai* in a preverbal position implies the existence of BOUNDARIES, as it does in spatial and temporal expressions. It does not direct people's attention to a BOUNDARY--neither BEGINNING nor END BOUNDARY--a content which is grammatically marked by *le* or *guo*. The element *zai* simply focuses attention upon some medial point/rupture of an EVENT thereby implying the existence of BOUNDARIES, and this explains why *zai* is usually interpreted as a Progressive Aspect marker,
indicating an ongoing EVENT. The relationship between LE, guo, zai and BOUNDARY may be pictured as follows:

```
BOUNDARY  BOUNDARY
↓          ↓
x----------------x----------------x------
LE          zai          LE          guo
```

**Figure 8**

Such an interpretation of *zai* as implying the existence of BOUNDARIES is not only applicable to the usual 'Progressive' interpretation, but also applicable to Teng's 'habitual interpretation', Chu's interpretation of 'a state of being' and Lin's 'temporary' interpretation. We consider that *zai* merely implies the existence of BOUNDARIES and that verbal semantics and/or properties of Nouns explain the possible interpretation of a habitual activity/state of being/temporary profession. With an unmarked Verb, as we have seen above, the utterance asserts a **general truth**, an **unbounded** habitual activity and an **unlikely changed profession**, all of which further confirms that the preverbal *zai* serves to imply the existence of BOUNDARIES.

Linguists analyzing the preverbal *zai* usually claim that only ACTIVE Verbs (Li and Thompson's Activity Verbs, or Smith's Activity and Accomplishment Verbs) can take the marker *zai*. While most linguists claim so on the basis that *zai* is regarded by them as designating an ongoing EVENT and that only Active Verbs can be used to describe an ongoing ACTION, Smith (1985) proposes that the Activity and
Accomplishment Verbs describe EVENTS that have the end-points, and that since zai is treated by Smith as suggesting 'progression towards the endpoint', only these two types of Verbs can take zai. Such an endpoint interpretation is relevant to, although different from, our postulation here, which will become clear shortly.

As we have postulated above, the element zai focuses attention upon some medial point of an EVENT and this rupture implies the existence of BOUNDARIES. While ACTIVE Verbs have sufficient semantic onset and offset to support such an implication and are therefore compatible with zai, STATIVE Verbs cannot cooccur with this marker, as shown in the sentences below:

(86)a. Tā zai hóng yǎnjīng  
   he ZAI red eye

(87)a. Tā-de yǎnjīng zai zhǒng  
   he-DE eye ZAI swollen

The Aspect marker zhe, however, can be used as a suffix to the aforementioned STATIVE Verbs, as given in the following:

(86)b. Tā hóng-zhe yǎnjīng ...  
   he red -ZHE eye  
   'His eyes are red ...'

(87)b. Tā-de yǎnjīng zhǒng -zhe ...  
   he-DE eye swollen-ZHE  
   'His eyes are swollen ...'

In the next section, we examine zhe in terms of BOUNDARY implication, and then we will investigate the differences, semantic as well as distributional, between the two markers zai and zhe.
5.2.2.2 **BOUNDARY implication of zhe**

*zhe* has conventionally treated as a Progressive Aspect marker, indicating an EVENT going on at the time of speaking or some reference time. But, as we have already shown earlier, since *zhe* occurs with, besides with most ACTIVE Verbs (i.e. Verbs of short PERIODICITY), some STATIVE Verbs which manifest STATIVE EVENTS with no ACTION to be perceived, it is inadequate to regard *zhe* as a Progressive Aspect marker. Linguists have tried to find a a more adequate conceptualization for this element; for instance, Teng (1979) names *zhe* a 'stative' Progressive marker; Kwan-Terry (1979b.220) retains the name a 'Progressive aspect marker' for *zhe* with a comment that the term 'in progress' is used in a very broad sense, including 'not only the progress or development of an action ..., but also the continuance of a state'; and Lin (1979) calls the element a Durative marker, which seems relatively preferable to the others. In the present study, *zai* and *zhe* are described as sharing the property of focusing attention on some medial point of an EVENT, and hence they both imply the existence of BOUNDARY. They are then differentiated from each other in terms of the IMMEDIATE--REMOTE opposition.

It has generally been suggested that the semantics of Verbs plays an important role in the choice between *zai* and *zhe* (cf. Teng 1979, Kwan-Terry 1979b, Ma 1983 and Smith 1985). Instead of having a discrete Verb classification
(cf. Teng 1975), Huang (1985) proposes that Verbs in Mandarin Chinese can be classified in terms of PERIODICITY and hence constitute a continuum, as illustrated below:

<table>
<thead>
<tr>
<th>short PERIODICITY</th>
<th>long PERIODICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>sī    tiào    pāo    chuān    zhīdào</td>
<td>'die'  'jump'  'run'  'wear'  'know'</td>
</tr>
<tr>
<td>pāo    dī    chuān    guà    gāo</td>
<td>'escape'  'drip'  'put on'  'hang'  'tall'</td>
</tr>
<tr>
<td>tǎng    dǎ    guà    tǎng    jiào</td>
<td>'lie down'  'hit'  'hang up'  'lie'  'be named'</td>
</tr>
</tbody>
</table>

Figure 9

We may notice on the above continuum that certain Verbs appear in different positions of the continuum indicating different lengths of PERIODICITY and thus varying senses. The postulation made earlier that zai and zhe both signal a focus upon some medial point of an EVENT and hence imply the existence of BOUNDARY has gained further confirmation here. That is, owing to their different lengths of PERIODICITY (or different distances between BEGINNING and END BOUNDARIES) Verbs have differing syntactic manifestations. For instance, those Verbs occurring at the two extremes of the continuum are neither compatible with zai nor with zhe.

Examples follow:

(88)a.*Tā zai sī
    he ZAI die

    b.*Tā sī    zhe
    he die ZHE

(89)a.*Tā zai gāo
    he ZAI tall
Verbs like sǐ 'die' have short PERIODICITY and as expected, the BEGINNING and END BOUNDARIES are so close to each other that it is difficult to perceive them as separate; such Verbs express INSTANTANEOUS EVENTS. Because of their unrepeatable property, unlike Verbs tiào 'jump' and dī 'drip' that also have short PERIODICITY but are repetitive, Verbs like sǐ 'die' are incompatible with zài or zhe, as shown in (88a-b). On the other hand, zài and zhe are not compatible with Verbs of long PERIODICITY either, as indicated by sentences (89a-b). The explanation is that these Verbs (generally called STATIVE Verbs) manifest configurationless STATES and possess no boundaries to which an internal rupture may allude; they are therefore incompatible with either zài or zhe.

Verbs appearing in between the two extremes, i.e. the extremes of short and long PERIODICITY, will be compatible with zài and zhe as expected. For instance:

(90)a. Tā zài tiào shéng
   he ZAI jump rope
   'He is jumping (a) rope'

b. Tā tiào-zhe shéng ...
   he jump-ZHE rope
   '(While) he is jumping (a) rope ...'

(91)a. Tā zài chuān yīfu
   he ZAI put:on/wear clothes
   'He is putting on clothes'

b. Tā chuān -zhe yīfu ...
   he put:on/wear-ZHE clothes
   'He is wearing clothes ...'
(92)a. Tā zài guà huà
    he ZAI hang picture
    'He is hanging up pictures'

b. Qiáng-shang guà -zhe huà ...
    wall -on hang-ZHE picture
    'On the wall there hangs a picture ...'

(93)a. Tā zài suǒ mén
    he ZAI lock door
    'He is locking up the door'

b. Mén suǒ -zhe ...
    door lock-ZHE
    'The door is locked ...'

First, consider Verbs like tiào 'jump' which have short
PERIODICITY and which can be repetitive. The combination of
such Verbs and zài produces an Iterative reading, e.g. (90a)
reads 'He is jumping a rope again and again'. These Verbs
are also compatible with zhe, as shown in (90b), except that
such a combination by itself appears to be incomplete in
meaning, or incomplete with respect to the pragmatic pur-
pose, i.e., the speaker is expected to provide more informa-
tion. Furthermore, as noted by many linguists such as Kwan-
Terry (1979b), Lin (1979) and Smith (1985), the construction
'Verb + zhe' often produces an effect of presenting back-
grounding information—a descriptive quality, to which we
will return shortly. As for Verbs like chuān 'put on/wear'
in (91a-b), guà 'hang (up)' in (92a-b) and suǒ 'lock (up)'
in (93a-b), we agree with Teng's (1979) claim that each of
them should be treated as a single Verb, but here we have
one point to make clear: although it seems possible to claim
that the presence of zài or zhe determines which reading the
utterance has, it is more legitimate to consider that because of the complex internal structure of these Verbs, the two markers zai and zhe place focus on the same portion of the structure (as illustrated in the following diagram) but in contrasting ways and hence create different readings:

\[
\begin{align*}
\text{zai} & \quad \text{LE} \\
\text{chuān: } & | \leftarrow '\text{put on'} \rightarrow | \quad \text{IMMEDIATE} \\
& | \leftarrow '\text{wear'} \rightarrow | \quad \text{REMOTE}
\end{align*}
\]

Figure 10

As suggested in Figure 10, the presence of zai draws our attention to the mid portion of the EVENT and the intensity of its IMMEDIACY so strongly implies the boundaries of chuān that the reading 'He is putting on (his) clothes' results in (91a). In (91b) zhe places the EVENT so REMOTELY and renders the activity so deemphasized that the RESULTANT STATE is more prominent. Compare he's putting on clothes with his putting on (of) clothes as a semantic contrast suggestive of that between zai and zhe, respectively. As for LE, it marks the BOUNDARY of the EVENT:

(91)c. Tā chuān le yīfu...
   he put:on/wear-LE clothes
   'He has put on (his) clothes, ...'

The relationship between zai, LE, zhe and BOUNDARY as diagrammed in Figure 10 explains why Kwan-Terry (1979b.221)
and others consider that 'the -zhe ... can be replaced by the perfect aspect marker -le, without affecting the meaning of the sentences ... the completion of the action also means that a new state prevails,' although these constructions with zhe and LE, as we can see, do designate certain contrasts, such as speaker's differing perspective and varying FOCUS on EVENTS. Furthermore, the interaction between different PARTICIPANTS (compare AGENT tā 'he' in [92a] with RECIPIENT/Locative qiáng–shàng 'on the wall' in [92b], and AGENT tā 'he' in [93a] with PATIENT mén 'door' in [93b]) needs to be taken into account in order to better understand the various constructions with the element, which will not be further discussed here.

As for Verbs like tāng 'lie down', zhàn 'stand' and zuò 'sit' (Li and Thompson's [1981] 'Posture Verbs'), they have complex internal structure similar to that of Verbs chuān 'put on/wear' and guà 'hang (up)', which can be diagrammed as in Figure 10:

\[
\begin{align*}
\text{tāng: } &| \text{<- 'lie down'>| IMMEDIATE} \\
\text{zhe} &| \text{<- 'lying->| REMOTE} \\
\end{align*}
\]

Figure 11
Grammatically these Verbs and Posture Verbs work in a very similar way, except that the former do not take zai, as shown below:

(94)a. *Tā zai tǎng
   he ZAI lie:down

b. Tā tǎng -zhe ...
   he lie:down-ZHE
   '(While) he is lying down ...'

This is because the ACTIVE portion of EVENTS such as tǎng 'lying down', like the EVENT sǐ 'die', is INSTANTANEOUS and only when viewed REMOTELY and thereby attenuated can it be viewed as interrupted by an internal BOUNDARY. When viewed IMMEDIATELY, the ACTION is so sharp that no rupture is possible, and zai will not cooccur with such Verbs.

As noted earlier, STATIVE Verbs (i.e. Verbs of long PERIODICITY) are incompatible with either zai or zhe. However, as noted in Teng 1979.11, STATIVE Verbs can sometimes appear with zhe (but never with zai) to designate 'transient STATES'. Consider the following sentences with (95a) ungrammatical and (95b) acceptable:

(95)a. *Tā-de yīfu hóng-zhe
   he-DE clothes red -ZHE

b. Tā-de yǎnjīng hóng-zhe ...
   he-DE eye red -ZHE
   'His eyes are red ...'

According to our knowledge and experience, that STATES can be transient is sometimes owing to the nature of cooccurring PARTICIPANT(S): yīfu 'clothes' in (95a) is not allowed to be in a 'transient' STATE of 'being red' and thus with zhe.
(95a) is ungrammatical. On the other hand, in (95b), since a person’s eyes can, due to certain factors, become red for a period of time, the STATIVE Verb hóng ‘red’ is compatible with zhe to indicate such a transiency. The term ‘a transient STATE’ implies the existence of BOUNDARY, which is grammatically expressed by zhe. Smith (1985.21), when characterizing the element zhe, treats zhe as presenting an ‘interval’. Also, recall Lin’s treating zhe as a marker of ‘durativeness’ and his claim (1979.123) that -zhe ‘signals limited duration [emphasis mine, LMH]’. These two treatments of zhe, like Teng’s (1979) analysis, can be seen as interpreting zhe as implying END(S), BOUNDARY(/IES). More examples like (95a-b) are given below:

(96a). * Zhè huā -píng tiěqīng -zhe
this flower-vase bluish: green-ZHE

b. Tā tiěqīng -zhe liǎn ...
he bluish: green-ZHE face
'(While) his face is being bluish green ...'

(97a). * Zhè fāngzì dà -zhe
this room big-ZHE

b. Tā dài -zhe dùzi ...
she big-ZHE stomach
'(While) she is pregnant ...'

Moreover, as noted in Chao 1968, Su 1973 and Teng 1979, zhe can be used in Imperative sentences. Observe:

(98) a. Tănɡ -zhe! ...
lie:down-ZHE
'Lie down! ...'
'Remain lying (down)! ...'

The property of zhe, i.e. implying the existence of BOUNDARY, is present here as well, but it is perceived
somewhat in a way different from what was previously discussed. In the earlier discussion, BOUNDARY is basically construed/implied with respect to the DOMAIN of EVENTS and the PARTICIPANT involved. The presence of BOUNDARY in Imperative sentences is, however, implied/anticipated from the speaker's point of view; it is the BOUNDARY the speaker anticipates to occur. For instance, (98a) can be uttered when the speaker wants the hearer who is now in a standing or sitting position to lie down—to be within the BOUNDARY that separates 'not lying down' from 'lying down', and then to stay inside that BOUNDARY. For the English Verb sit, but not lie, there is the possibility for expressing this contrast. Compare Be seated! as a gloss for Zuò-zhe in (98b) as opposed to Sit! as a gloss for Zuò! This BOUNDARY exists in the speaker's perception and is implied on his part. In this case, the implied BOUNDARY is the BEGINNING BOUNDARY of the RESULTANT EVENT 'lying down'. In addition, (98a) can be used when the speaker considers the hearer who is already in a lying position is going to get up. The BOUNDARY is then anticipated between 'remaining lying' and 'getting up' from the speaker's point of view. The focus is upon the medial segment of the EVENT; and in the denial of BOUNDARY that this focus signals, a continuation of that EVENT is communicated. He does not want the hearer to approach that BOUNDARY but to remain inside it and so uses the sentence with zhe. The BOUNDARY here refers to the END
BOUNDARY of 'lying down' and is anticipated from the speaker's perspective. In short, in both possible situations, the existence of BOUNDARY is implied/anticipated from the speaker's point of view and such an implication of BOUNDARY is grammatically signalled by zhe. Similar cases are found with Posture Verbs and Verbs having complex internal semantic structure:

(98)b. Zuò-zhe! ...
   sit-ZHE
   'Sit down! ...'
   'Remain seated! ...'
   'Be seated! ...'

c. Zhàn -zhe! ...
   stand-ZHE
   'Stand up! ...'
   'Stand still! ...'

d. Bì -zhe! ...
   close-ZHE
   'Close (your eyes)! ...'
   'Keep (your eyes) shut! ...'

There are instances in which it is only possible for the BEGINNING BOUNDARY to be implied. For instance:

(99)a. Ná -zhe! ...
    take-ZHE
    'Hold on to it! ...'

(99a) can be used when a person wants to open the door; he asks his companion to hold his book, pen, etc. so that he can open the door. This is like the first interpretation of (98a); i.e., the EVENT 'holding' has not started and the BEGINNING BOUNDARY is not formed yet. The speaker anticipates the BOUNDARY and wants the hearer to be inside that BOUNDARY, that is, to hold on to it and not to take it.
More examples like (99a) are given below:

(99)b. Màn -zhe! ...
   slow-ZHE
   'Slow! ...'
   'Hold! ...'

c. Déng-zhe! ...
   wait-ZHE
   'Wait! ...'

d. Jì -zhe! ...
   remember-ZHE
   'Remember! ...'

The above observations suffice to demonstrate that zhe is better characterized as implying the existence of BOUNDARY, like the element zai. The question which we must now address in more detail is, 'If both zai and zhe imply the existence of BOUNDARY, how can they be distinguished from each other?'

5.2.2.3 Contrast between zai and zhe

We have shown that distributionally, zai is compatible with ACTIVE Verbs (Verbs of short PERIODICITY) except for Verbs like sǐ 'die' and pāo 'escape', and that zhe is compatible with a wider range of Verbs including ACTIVE Verbs and some STATATIVE Verbs. Further, we have noted that Verbs cooccurring with zhe by themselves sound incomplete, e.g. (90b)-(97b), which is not the case with zai. Apparently, zhe is different from zai, although both serve to imply the existence of BOUNDARY.

The IMMEDIATE--REMOTE opposition mentioned in Chapter Two and above in Figure 7 provides the means to integrate
their contrast into the semantic system of Aspect. This basic opposition is manifested in various modes, for instance, temporal and spatial, as used in contrasting LE and guo. In comparing zai and zhe, this opposition is used in the following ways. First, as noted above, zai is only compatible with ACTIVE Verbs and the combination generally expresses an ongoing ACTION, whereas zhe is used to designate a RESULTANT/less ACTIVE EVENT or a transient STATE, and thus less activity/ACTION is perceived. Consequently, we may—as suggested above—consider that such a contrast between ACTION and STATIVITY is another manifestation of the IMMEDIATE—REMOTE opposition: something going on can easily attract people's attention—it is more IMMEDIATE; and something static can less capture people's attention—it is more REMOTE. In this way, the IMMEDIATE—REMOTE opposition designating the contrast between zai and zhe is in the sense of different degrees of ACTION—STATIVITY.

Next, the IMMEDIATE—REMOTE contrast between zai and zhe can be understood in terms of the pragmatic function. The construction with zai can present a complete meaning by itself and function as a main story line. But the construction with zhe generally designates STATIVITY and as expected, it often serves as a background while some ACTION is going on in the front and in the spot light of attention. Even when zhe is suffixed to an ACTIVE Verb like tiào 'jump', the result seems to be to reduce the ACTION of the
EVENT in question and to push this EVENT away from the main story line, functioning as backgrounding information and hence a main EVENT is often required to take place. In illustration of this point, sentences (100)-(101) are presented:

(100)a. Tā hóng-zhe liǎn bù shuō huà
   he red -ZHE face not say word
   'He, having his face red, does not talk'

   b. Tā dà -zhe dùzi, nǐ bú yào ré tā
   she big-ZHE stomach you not want provoke she
   shēngqì
   anger
   '(While/Since) she is pregnant, do not make her angry'

(101)a. Tā zài kàn báo
   he ZAI read newspaper
   'He is reading newspapers'

   b. Tā kàn -zhe báo chī fàn
   he read-ZHE newspaper eat rice
   'He eats/is eating while reading newspapers'

   c. Tā kàn -zhe báo, nǐ bú yào qù chǎo tā
   he read-ZHE newspaper you not want go disturb he
   'While! he is reading newspapers, do not disturb him'

While the EVENT/Verb kàn(-bào) 'read (newspapers)' with zai in (101a) can stand by itself, Verbs—either STATIVE, e.g. hóng 'red' in (100a) and dà 'big' in (100b), or ACTIVE, e.g. kàn 'read' in (101b-c)—with zhe require the copresence of a second interrupting EVENT/Verb. In the latter situation, the EVENT expressed by 'Verb + zhe' may be used to describe the manner in which the AGENT/EXECUTOR performs another EVENT (e.g. [100a] and [101b]) or as a subordinate clause to indicate condition, reason or temporal relation with respect
to another EVENT which may be performed by another person (e.g. [100b] and [101c]). Compare this backgrounding use of zhe with constructions indicating simultaneous ACTIONS of equal concern, as shown below:

(102)a. Tā kàn -zhe báo chǐ fàn
   he read-ZHE newspaper eat rice
   'He eats/is eating while reading newspapers'

   b. Tā yǐ -miàn kàn báo yǐ -miàn chǐ fàn
   he one-side read newspaper one-side eat rice
   'He reads/is reading newspapers while he eats/is eating'

While (102a) has a subsidiary EVENT 'reading newspapers' expressed by the element zhe suffixed to the first Verb kàn 'read' and a main EVENT 'eating' expressed by an unmarked Verb chǐ 'eat', (102b) indicates that two EVENTS 'reading newspapers' and 'eating' are of equal importance and happening at the same time. They both are manifested by unmarked Verbs kàn 'read' and chǐ 'eat'; neither is background to the other.

Such a backgrounding property can also be found in Imperative sentences with Verbs suffixed by the element zhe; that is, if an Imperative sentence is in the 'Verb + zhe' pattern, another EVENT (a main EVENT) needs to be either present or implied. Observe the following sentences:

(103)a. Tīng -zhe! [Wǒmen mǐngtiān qù lǚxíng]
   listen-ZHE we tomorrow go travel
   'Listen! We are going to have a trip tomorrow'

   b. Zhān -zhe! [Wǒ huà hái méi shuō-wán]
   stand-ZHE I word still not say -finish
   'Stand still! I have not finished talking'
c. Ná -zhe! [Wǒ lái kāi mén]
take-ZHE I come open door
'Hold it! Let me open the door'

The main EVENT in each sentence above is expressed by the
second clause within brackets. Rhetorically, the first
clause with zhe in (103a-c) introduces the main EVENT
following; it does not express the main point the speaker
has in mind but serves as a pointer: something more
important is coming. Moreover, interpreting zhe as
signalling the REMOTENESS of backgrounded information can
adequately account for the presence of more than one Verb
with zhe in a sentence. Consider (Li and Thompson 1981.224,
18, 1985):

(104)a. Tā xié -zhe yǎn, xiào -zhe kàn wǒ
he slant-ZHE eye smile-ZHE look I
'Smiling, he looked at me out of the corner of his
eye'
b. ... yùndòngyúán-men jǔ -zhe méi lì -de huǎshù,
   sportsman -Pl hold-ZHE beautiful-DE bouquet
   màì -zhe zhēngqí -de bùfá, jǐnrù bìsài dà
   stride-ZHE even -DE step enter competition big-
tǐng
   hall
   '... sportspeople carrying beautiful bouquets and
   marching in step entered the competition court'
c. Gūmá xǐngfèn -de jǐn -wǒ -zhe lái -xǐn,
aunt excited-DE tight-hold-ZHE come-letter
qǐn -zhe làishù, dú lǒng shuō ...
hold:back-ZHE tears to I say
'Excitedly, Aunt, holding the letter tight and
having tears held-back (in her eyes), said to me
...:'
In (104a), as indicated by the English gloss, the main EVENT 'look (at me)' is expressed by the Verb kàn (wo), while both xié-zhe yăn 'slanting (his) eyes' and xiào-zhe 'smiling' with the element zhe describe the manner the AGENT tā 'he' carries out his main EVENT. In a similar way, (104b) has two backgrounding activities jū-zhe huāshù 'carrying bouquets' and mài-zhe bùfá 'striding', both describing how the AGENT yùndòngyuánmen 'sportspeople' perform the main EVENT jìnrù dàtīng 'enter the court'. Likewise, in (104c) the two EVENTS jīnwò-zhe lǎixīn 'holding the letter tight' and qún-zhe lèishuǐ 'holding back tears' serve as background describing the manner of the AGENT qūma 'aunt' when the main EVENT shuō 'say' took place. Clearly the above three instances illustrate that there can be more than one backgrounded EVENT accompanying a main EVENT in a sentence.

Furthermore, as noted by Kwan-Terry (1979b), sometimes a sentence may have all the clauses in it in the 'Verb + zhe' pattern. For instance (Kwan-Terry 1979b.223 and Central Daily News, Jan. 17, 1987):

(105)a. Nà tiān wǎnshang, tāmen liǎng rén zài hǎibīn that day night they two person ZAI seaside
màn bù-zhe mèngxiāng-zhe mèimǎn dē jiānglái stroll-ZHE dream -ZHE beautiful-DE future

'That night, the two of them strolled (were strolling) along the seaside, and dreamed (were dreaming) of their beautiful future.'
b. [Tā jīguà -zhe guójiā, jīguà -zhe fùmǔ
he concern-ZHE nation concern-ZHE parent
qīn -yǒu, shīzhǎng tóngxué, jīguà -zhe
relative-friend teacher classmate concern-ZHE
yīqìè yǔ tā chéngzhǎng yǒuguān-de rén yǔ
everything and he growth related-DE person and
wù, yě jīguà -zhe yǒu zài qiúxué jiēdùàn-
object also concern-ZHE still ZAI study stage -
de qīngnián xuézhǐ.] Tā shífēn rèxīn -de
DE youth student he very enthusiastic-DE
tán gè -zhòng wèntí, ...
talk every-kind question

"He is concerned about (his) country, concerned about (his) parents, relatives, friends, teachers, (and) classmates, concerned about every person and object (that is) related to his growth, also concerned about the youth who are still at the stage of studying. He discusses all kinds of problems with great enthusiasm ..."

Kwan-Terry (1979b.226) regards sentences like (105a) with Verbs suffixed by zhe as background description; in other words, the element zhe has the descriptive quality, which designates, in our term, REMOTENESS of an EVENT. Such a backgrounding/REMOTE characteristic of zhe is even more prominent in sentence (105b). The first sentence in (105b) is composed of four clauses enclosed within brackets, each of which has the Verb jīguà 'concern' suffixed by zhe. These four clauses are used to describe a characteristic of Dr. Li Yuanzhe, who has just won the Nobel prize in Chemistry. In other words, the four clauses appear as a background, in contrast with the main EVENT expressed by the following sentence; that is, 'Dr. Li is very enthusiastic
when discussing with people all kinds of problems', which seems to be the main point the writer wants to present and to attract readers' attention. In sum, the element zhe used in these clauses is to signal the backgrounded information expressed by the Verbs zhe is suffixed to. Zhe then can be regarded as a grammatical device for signalling backgrounded information, which is a manifestation of semantic REMOTE-NESS.

5.3 Concluding remarks

In this chapter, we have reviewed several of the previous treatments of three Aspect markers guo, zai and zhe. We have pointed out some inadequate interpretations in those earlier analyses and have thus proposed an alternative treatment based on the notion of BOUNDARY, which has already been introduced in interpreting the aspectual marker LE. To be more specific, we have demonstrated that LE and guo can be better characterized as marking a BOUNDARY that is congruent with a BOUNDARY of the DOMAIN (EVENT, PROPOSITION, discourse turn-taking) of ASPECT, with the difference between LE and guo being that LE indicates a BOUNDARY that is IMMEDIATE, while guo effectively renders its EVENT REMOTE by designating a departure from the EVENT and focussing upon the crossing of the terminating BOUNDARY. Zai and zhe focus upon some medial point within an EVENT by imposing a BOUNDARY noncongruent with the EVENT's natural one(s), and in that focussing both create the impression of a reference to the
BOUNDARIES of their EVENTS. The IMMEDIATE--REMOTE opposition is adopted in order to differentiate LE from guo (particularly in cases where LE seems to be replaceable by guo), and to differentiate zai from zhe. We have also pointed out that the IMMEDIATE--REMOTE opposition can be manifested in various ways, such as temporal, spatial and foregrounding--backgrounding contrast. As a consequence, these four aspectual markers LE, guo, zai and zhe form a semantic system, on the basis of the notion BOUNDARY and the IMMEDIATE--REMOTE opposition. The functioning of the system can be schematized as follows:

![Diagram showing the relationship between IMMEDIATE and REMOTE, ACTIVE and STATIVE, BOUNDARY stages 1 and 2, and markers LE, zai, guo, zhe.]

Figure 12

On the left, the vertical line designates a continuum for Verbs in Mandarin Chinese with two extremes ACTIVE (short PERIODICITY) and STATIVE (long PERIODICITY). The horizontal
line on the bottom indicates two successive stages/phases which can be STATES or EVENTS. On the line, there are three 'x' dots: the leftmost one signals the BEGINNING BOUNDARY of a STATE manifested by a STATIVE Verb, and the BOUNDARY here is marked by LE. The second 'x' dot designates the END BOUNDARY of a STATE, and here the END BOUNDARY is formed only when the subsequent stage is present. The rightmost x dot (as well as the leftward, upwardly curved line, hereafter the quo line), designates Departure from the (END) BOUNDARY. When a Verb is STATIVE, the two dots marked by LE and quo are very distant from each other, and hence quo is very likely interpreted as an Experiential (REMOTE) Aspect marker. As the Verbs which occur with LE and quo are of the kind that are more ACTIVE (i.e. fall higher upon the STATIVE--ACTIVE parameter), the two curved lines designating LE's and quo's approach each other; and as expected, eventually LE and quo 'seem' to merge and to be nearly inter-changeable. This illustrates how quo sometimes is regarded as a 'Perfective' Aspect marker like LE.

As for the 'at' sign '@' on the bottom line, it indicates the incompatibility of a STATIVE Verb with the element zai or zhe. There are two slanting lines coming out of the @ sign: the solid one (hereafter, the zhe line) and the one with both dot and solid portions (hereafter, the zai line). The dotted line within the zai line designates the impossible cooccurrence of zai with both STATIVE (appearing
between the bottom line and horizontal line 1) and Posture Verbs (appearing between horizontal lines 1-2). The first part of the solid line after this (as marked in the diagram between horizontal lines 2-3) refers to the compatibility of zai with Verbs having complex internal structure (here excluding Posture Verbs). The rest of the solid line represents the possible copresence of zai and other ACTIVE Verbs. The zhe line (not including the @ sign) indicates the compatibility of zhe with a wider range of Verbs, which can be STATIVE (although not all STATIVES) or ACTIVE Verbs. Before crossing the vertical END BOUNDARY line, the zhe line represents the possible cooccurrence of zhe and certain STATIVE Verbs. The sense of REMOTENESS is present here, indicating STATIVITY (less ACTION) of the STATIVE EVENT in question.

After crossing the END BOUNDARY line, the first two portions of the zhe line (between horizontal lines 2-3) indicate the possible cooccurrence of zhe and Verbs having complex internal structure (including both Posture Verbs and Verbs like chuān 'put on/wear'). Two things to point out here with respect to the horizontal lines 2 and 3 are: the left side between lines 1-3 (separated from the right side by the END BOUNDARY line) represents the ACTIVE portion of EVENTS, but only Verbs appearing between lines 2-3 are compatible with zai (i.e. not including EVENTS expressed by Posture Verbs), the right side between lines 1 and 3 (the triangle portion) stands for RESULTANT EVENTS implying some ACTIVE EVENTS have
already taken place and are compatible with zhe. The rest of the zhe line indicates the cooccurrence of zhe and other ACTIVE Verbs; the combination of such also presents the property of REMOTENESS, but in the sense of backgrounding instead of STATIVITY. In other words, when an ACTIVE Verb takes zhe, it appears in stage 2, which implies that there is another EVENT (a main EVENT) to take place (and hence it can be shown on the diagram in stage 1 as a foreground). The diagram in Figure 12 can then be filled in as follows:

![Diagram](image)

**Figure 13**

Understanding what Figures 12 and 13 designate, we can now summarize what has been discussed in this chapter (here we are not going to repeat in detail the discussions presented before; one may refer to the relevant sections for the interpretation of each marker):

(a) LE marks an IMMEDIATE BOUNDARY congruent with natural
BOUNDARY of its DOMAIN:

(i) Whether it occurs with STATIVE or ACTIVE Verbs, and whether it immediately follows Verbs or appears in the sentence-final position, LE marks the BOUNDARY of an EVENT, a PROPOSITION or a larger unit.

(106)a. Tā gāo le
he tall LE
'He has become taller'

b. Tā gāo -le sān cūn ...
he tall-LE three inch
'He has grown three inches taller ...'
'He is three inches taller than average ...'
'He is three inches too tall ...'

c. Tā gāo -le sān cūn le
he tall-LE three inch LE
'He has grown three inches (now)'

(107)a. Tā chī-le fàn ...
he eat-LE rice
'(After) he eats/ate, ...

b. Tā chī fàn le
he eat rice LE
'He has begun eating'
'He has eaten'
'He ate'

c. Tā chī-le fàn le
he eat-LE rice LE
'He has eaten'
'He ate'

(ii) Cooccurring with Verbs that have complex internal structure, LE simultaneously marks the END BOUNDARY of the ACTIVE portion of the EVENT and the BEGINNING BOUNDARY of the RESULTANT/less ACTIVE part of the EVENT; hence, different readings may be given.

(108) Tā chuān -le xīn-yī ...
he put on/wear-LE new-clothes
'(After) he put on new clothes ...'
'(While) he is wearing new clothes ...'

(b) Guo also designates BOUNDARY but contrasts with LE in being REMOTE. This marks the content of its DOMAIN as being at a greater remote than does LE, and it does this
by marking the terminal BOUNDARY of the DOMAIN, specifically pointing to its crossing, i.e. an exit from the content of the DOMAIN:

(i) Cooccurring with Verbs (either STATIVE or ACTIVE; but if STATIVE, a subsequent stage needs to be allowed), guo indicates Departure from the END BOUNDARY (as shown in Figure 12 that guo marks a point in stage 2).

(109)a. Wǒ qù-guo Méiguó
    I go-GUO America
    'I have been to the States'

       b. Wǒmen dōu niánqīng-guo
         we all young GUO
         'We once were all young'

(ii) Sometimes linguistic or non-linguistic factors may play a role in replacing guo with LE, or vice versa (as shown in Figure 12 that the two lines LE and guo are approaching).

(110)a. Wǒ chī-guo fàn jiù lái
    I eat-GUO rice then come
    'After I eat, I will come'

       b. Wǒ chī-le fàn jiù lái
         I eat-LE rice then come
         'After I eat, I will come'

(c) Zai and zhe both imply the presence of BOUNDARY by focussing upon some point that is medial in the period of the EVENT:

(i) Verbal semantics plays a very important role in choosing between zai and zhe. Zai can only cooccur with ACTIVE Verbs (i.e. Verbs of short PERIODICITY), while zhe may cooccur with a wider range of Verbs. Furthermore, the use of zai or zhe contrast semantically: one designates ACTION and the other STATIVITY, which can be better illustrated by Verbs with complex internal structure.

(111)a. Tā zai chuān xiézi
    he ZAI put:on/wear shoes
    'He is putting on (his) shoes'

       b. Tā chuān -zhe xiézi ...
          he put:on/wear-ZHE shoes
          'He is wearing shoes ...'
(ii) The use of zai or zhe also indicates pragmatic differences: a Verb with zai can by itself give a complete meaning while a Verb with zhe is not complete in meaning and often presents only backgrounding information so that a main EVENT has to be present or implied.

(112) a. Tā zai chī fàn
    he ZAI eat rice
    'He is eating'

    b. Tā chī-zhe fàn, [nǐ bù yào qù chǎo tā]
    he eat-ZHE rice you not want go disturb he
    'While he is eating, do not disturb him'

So far we have discussed the properties of the four major Aspect markers in Mandarin Chinese and have demonstrated that they form a semantic system on the basis of the notion BOUNDARY and the IMMEDIATE--REMOTE opposition.

To conclude the present discussion of Mandarin Aspect system, we give the following examples with the unmarked Verb jiao 'teach', in opposition to the Verb affixed by one of the four markers LE, guo, zai and zhe:

(113) a. Zhāngsān jiāo shū
    Zhangsan teach book
    'Zhangsan teaches'

b. Zhāngsān zuótiān jiāo shū
    Zhangsan yesterday teach book
    'Zhangsan taught yesterday'

c. Zhāngsān zhèngzài jiāo shū
    Zhangsan now teach book
    'Zhangsan is teaching right now'

d. Zhāngsān jīntiān wǎnshàng jiāo shū
    Zhangsan today night teach book
    'Zhangsan will teach tonight'

(114) Zhāngsān jiāo -le shū ...
    Zhangsan teach-LE book
    '(After) Zhangsan taught/teaches ...'
Recall the fundamental aspectual principle postulated in Chapter Two, that is, the DIFFUSE--FOCUSSED opposition. We can see this principle work in accounting for the Mandarin Aspect system as well. To be more explicit, the contrast between unmarked and marked verbal forms in the language is another way to manifest the semantics of the DIFFUSE--FOCUSSED opposition. Sentence (113a) with the unmarked Verb jiāo shū 'teach (book)' describes a person's profession or habitual activity; unless specified (linguistically, as in [113b-d] or non-linguistically), Zhangsan will not change his job/regular work. In other words, sentence (113a) states a general truth and the EVENT expressed has nothing being FOCUSSED. On the other hand, sentences (114)-(118) describe certain point of an EVENT that is being FOCUSSED and that attracts attention. In general, what is being FOCUSSED can be part of an EVENT, a PROPOSITION, a discourse unit, the interaction between the speaker and the EVENT in
question, etc. For instance, in sentence (114), the verbal 
LE marks the END BOUNDARY of the EVENT 'teaching', which is 
the FOCUS. In (115), the sentential LE also marks BOUNDARY, 
which, however, can be the BEGINNING BOUNDARY of the EVENT 
'teaching' (and thus the first reading 'Zhangsan has begun 
teaching'), the END BOUNDARY of the EVENT (and then the 
second and third readings 'Zhangsan has taught/taught') or 
even the BOUNDARY designating the change of TOPIC or the end 
of one's contribution to a conversation, as presented in 
Chapter Four. Guo in (116) designates REMOTE BOUNDARY of 
the EVENT 'teaching', which again places attention/FOCUS on 
the departure from that activity. In sentence (117) with 
the marker zai, the EVENT 'teaching' can be either going on 
at this moment, or take place over a period of time (and may 
change in the future), a variation that is due to the seman-
tics of the Verb jiāo 'teach' (and in some other cases, as 
described in Section 5.2.2, the nature of PARTICIPANT/Noun 
plays a role as well). This further confirms that zai 
simply implies the BOUNDARY. In other words, in contrast 
with an unmarked Verb manifesting an UNBOUNDED/DIFFUSE 
EVENT, the Verb with zai designates a BOUNDED one with FOCUS 
being placed on the midpoint of the EVENT. Similarly, zhe 
in (118) implies the existence of BOUNDARY, and the Verb 
suffixed by zhe, in opposition to an unmarked Verb, mani-
fests a BOUNDED EVENT too. In sum, while the unmarked 
verbal form in Mandarin Chinese (unless specified somehow)
expresses an UNBOUNDED EVENT (i.e. a DIFFUSE one), the
marked form (whether it is marked by LE, guo, zai or zhe)
generally designates a BOUNDED EVENT with FOCUS on different
portions signalled by different Aspect markers in question.
Here the DOMAIN of ASPECT is an EVENT, but as discussed
before, sometimes the DOMAIN can be larger than an EVENT.
To conclude, the fundamental aspectual opposition signalled
by the absence or presence of certain markers in Mandarin
Chinese can be illustrated as follows:

DIFFUSE:                      FOCussed:
UNBounded                     Bounded
REMOTE                        IMMEDIATE
x-----------------------------x------------------x

∅              guo              LE
zhe             zai

Figure 14
Footnotes

1 As mentioned in Ma 1977 (25, fn.1), 'Dragunov (1952) ... considers -guo as an aspect marker. He claims that guo "marks an unaccomplished, uncompleted action which has taken place in the indefinite or remote past and allows the possibility of repetition." Like Ma, we do not know what Dragunov meant by claiming that guo marks an 'unaccomplished, uncompleted action' since he follows that claim with the remark that the same action 'has taken place'; but his observation that guo signals that the EVENT in question has taken place in the remote past and his observation that the EVENT is repeatable seem to be very influential and followed by many linguists, e.g. Ma (1977).

2 Fan (1984.96-97) has a similar observation.

3 That sentential le usually cooccurs with guo is also noted by Teng (1973.20), 'Guo in the latter sense [i.e. serving as a 'Perfective' marker, or Lin's recent past complete aspect marker, LMH] designates the property of "it has come to pass", hence rarely occurring alone without Li [i.e. sentential le, LMH], ' which makes us further suspect that it is the cooccurring sentential le that adds to the sense of 'recency/immediacy' of an utterance.

4 For many speakers of Mandarin Chinese, sentence (5d) is a grammatical sentence and is an appropriate answer to (5a). That Teng (1973) uses such an utterance opposed to (5c) for proposing two guo's in the language is at best problematic. See Su 1973 for similar argument against Teng's postulation.

5 Teng (1973) does not further discuss the differences between the two elements LE and guo that he posits to be Perfective Aspect markers. We do not know, for instance, even within the Transformational-Generative framework, how these two Perfective Aspect markers can be derived from the same underlying structure and what motivates the choice of one marker instead of the other. In short, Teng's postulation is rather tentative and needs further modification. Smith (1985.13) also suggests Mandarin Chinese has two Perfective aspectual viewpoints signalled by LE and guo (but unlike Teng [1973], she considers there is only one aspectual guo). She (1985.13) states that both 'take events as a whole: le presents an event with initial and final endpoints, guo presents an event with both endpoints and a
subsequent stage.' For further discussion, refer to Smith 1985.9-13.

6  See Huang 1985 or Section 5.2 in this chapter for a discussion of the verbal classification in Mandarin Chinese.

7  Smith (1985.10-11) has a similar observation although her treatment of guo is different from the one presented here. For details, see Smith 1985.

8  The notion of PERIODICITY is taken from Davis Ms.b. As for the application of this notion in classifying Verbs in Mandarin Chinese, refer to Huang 1985.

9  For instance, Shu-xiang Lü 1947, Li Wang 1954, Chao 1968 and many followers treat zhe as an aspectual marker although they do not completely agree on the interpretation of zhe, a fact which will become clear in the later discussion.

10  Before Su 1973, zai was generally regarded as an Adverb or part of an adverbial phrase zhèngzài 'just now'. Tsung (1971.122), however, treated it as a helping Verb which 'either substitutes for or co-occurs with jie [i.e. zhe, LMH], ne, or their combination.' It was not until 1973 that Teng in a footnote remarked that Mandarin Chinese has two 'progressive' patterns signalled by zai and zhe, but he did not elaborate his point until Teng 1975 and 1979, which will be discussed shortly.

11  Kwan-Terry (1979b.214-15) suggests two reasons for treating zai as an Aspect marker: (i) compared with Aspect markers such as LE and guo, zai also indicates phase of development, and (ii) it is never used independently of the Verb. For details, refer to Kwan-Terry 1979b.

12  This treatment of the preverbal zai as an Adverb is still shared by some contemporary Chinese grammar books. For instance, Jiang (1984.88) states, '... sometimes zai immediately precedes a Verb and should be treated as an Adverb, expressing time ...' [my translation, LMH]. Also, it is stated in Modern Contemporary Chinese (1983.135) that 'Adverb zai indicates the progressiveness or duration of an action, which can also be expressed by zheng or zhengzai. Adverb zai always precedes a Verb.'
This term is taken from Su 1973.1, referring to words of the same phonetic and graphic shapes but of different meaning.

For a more detailed discussion of the different functions of the form *zai*, see Su 1973.60-62 and DeFrancis 1963.83.

This term is also adopted by Chu (1983). In his early discussion of *zhe*, Chu (1978) agrees, although not completely, with Li and Thompson's (1976) characterization of *zhe* in a complex sentence and proposes that *zhe* has the properties of 'subordination' and 'simultaneity', which, Chu (1978.162) adds, can be better characterized as 'incompleteness' when it occurs in a simple sentence. For a detailed discussion, refer to Chu 1978 & 1983.92-94.

This is also noted in Lin 1979 and Chu 1983. Yet, according to Lin (1979.126) and Chu (1983.93), the presence of the sentence particle *ne* may help sentences like (38a-b) sound complete, that is:

(1) a. Tā niàn-zhe shū *ne*
   he read-ZHE book NE
   'He is reading (a book)'

b. Tā xiǎng-zhe nǐ *ne*
   he think-ZHE you NE
   'He is thinking of you'

However, Lin (1979) treats the particle *ne* as a 'contrastive mood particle' while Chu (1983) regards it as indicating 'continuity'. The discussion of *ne* is beyond the scope of the present study and will not be further pursued here.

The cooccurrence of two or more Aspect markers can be accounted for in terms of their different DOMAINS or in terms of what has been focussed on (recall the discussion on two or more cooccurring Aspect markers in Amharic mentioned in Chapter Two). However, owing to limited space, such a phenomenon in Mandarin Chinese will not be further pursued here. Readers may refer to Spencer 1970 for some illustration of cooccurring Aspect markers in Mandarin Chinese.

I change the original asterisk (*) to a question mark because sentence (54b), as well as (55b) and (68a), sounds
to me incomplete but not ungrammatical. With additional information, these sentences seem acceptable, as shown below:

(1) Tā kū -zhe zǒu -chū -qù he cry-ZHE walk-exit-go 'He walked out crying'

(2) Tā kū -zhe, nǐ bù -yào chǎo tā he cry-ZHE you not-want disturb he '(While) he is crying, do not disturb him'

Also see footnote 16 above; that is, the use of particle ne may help sentences sound complete.

19
The Resultative Verb Complement Construction is composed of two Verbs with the second signalling the result of an ACTION manifested by the first Verb. For a more detailed discussion of this construction, see Huang 1980, Li and Thompson 1981.54-68, or Chu 1983.

20
Below are some of the contexts Lin lists in which zhe can be used (1979.100-11):

(a) -Zhe can be suffixed to an action verb to indicate the duration or continuance of a state resulting from the previous operation of an action.

(1) Nèi -wèi lǎo tàitāi dài -zhe yī -dǐng bái màozi that-Cl old lady wear-ZHE one-Cl white hat 'That old lady has a white hat on'

(b) -Zhe can be suffixed to an action verb to indicate that the action is in continuance long enough so that the event is tinged with a stative quality.

(2) Wàimiàn guà -zhe dà fēng outside blow-ZHE big wind 'The wind is blowing strong outside'

(c) This durative and descriptive quality is most apparent in sentences where -zhe is suffixed to a verb in the subordinate clause of a complex sentence.

(3) Tā chī-zhe zǎofàn tīng kē' he eat-ZHE breakfast listen class 'He listened to the lecture while eating breakfast'
(d) -Zhe, can also be suffixed to an action verb or verb phrase, to indicate the repetition of a momentary action.

(4) Tā bùshí dé kǎi-zhe liǎn-shàng-de hàn
he repeatedly wipe-ZHE face-on -DE sweet
'He was repeatedly wiping away the sweat on his face'

(e) -Zhe can also be suffixed to a stative verb which is then turned into a causative verb, with durative and stative qualities.

(5)a. Tāng hěn rè
soup very hot
'The soup is very hot'

b. Tāng rè -zhe ne
soup hot-ZHE NE
'The soup is being hot/heated'

(f) -Zhe can also be suffixed to a process verb and makes the whole predicate a sustained state.

(6) Zài cǐ duō zhù jǐ -tiān nǐ jiù míngbái
at here more live several-day you then understand
huó -zhe jiù shì nèmo yǐ -huǐ shì
live-ZHE just be that one-CL matter
'Stay here for a few more days, you'll then understand that life is nothing but this'

(g) -Zhe can also be suffixed to a stative verb to indicate that a certain state is sustained.

(7) Zhāngsān nǎinai zhè liǎng-tiān máng-zhe gěi
Zhangsan grandma this two -day busy-ZHE give
tā jiàn yìshang
he collect clothes
'Grandma Zhang has been busy collecting clothes for him these days'

(h) -Zhe can also be suffixed to an action verb, or a stative verb to form an imperative.

(8) Zuò-zhe!
sit-ZHE
'Be sitting!'
'Remain seated!'
Smith (1985.3) considers that Aspect has two components, namely, situation type (i.e. Verb type) and viewpoint, and the domain of Aspect is the sentence. 'A sentence talks about a particular situation type, and presents it from a particular temporal perspective, e.g. perfective and imperfective. Viewpoint aspect concerns these temporal perspectives. Different viewpoints have their own temporal schema, that can be seen as superimposed on the schema of a situation type. Not all viewpoints are compatible with all situation types' (Smith 1985.3). Evidently, what is generally treated as 'Aspect' is what Smith regards as 'viewpoint'. In other words, Smith's 'Aspect' has a wider domain than is conventional.

Smith (1985.2-3) accepts Vendler's (1967) and Dowty's (1979) classification of Verbs into four types; namely, Activity, Accomplishment, Achievement and State. A brief characterization of these four types of Verbs can be given as follows (Smith 1985.3):

States are stable situations with undifferentiated stages. They do not include endpoints ... Activities have arbitrary endpoints, that is, they can end at any stage ... Accomplishments and Achievements have natural, or intrinsic, endpoints. Accomplishments are durative ..., whereas in Achievements the initial and final endpoints are simultaneous in principle ...

This sentence, according to Smith (1985), has an Accomplishment Verb so that it is compatible with zai. However, the sentence does not seem to be acceptable to me, owing to the verbal complement dào. Other examples with what Smith calls 'Accomplishment Verbs' are needed.

The term 'localizer' used here follows Chao's interpretation (1968.620) referring to part of a place word or a time word. 'Localizers ... usually express the (spatial and temporal) locations (lit. or fig.) of things ... [and] they are also called postpositions' (Chao 1968.621-22). Li and Thompson (1981.391), on the other hand, use the term 'locative particle' instead of 'localizer' which, evidently, does not include the one used in temporal expressions. For a list of localizers, see Chao 1968.623-37 or Li and Thompson 1981.391.
25 There are certain cases in which only zai is present without a localizer. In such cases, the place word is a place name, e.g. Xiūshídùn 'Houston'. For a detailed discussion, refer to Li and Thompson 1981.390-95.

26 Although this is not a major point, we do want to make it clear that we are claiming that zai in sentences (73)-(76) is the same morphological element as the aspectual zai. It is precisely our view that zai is to be characterized by NONCONGRUENT BOUNDARY (and IMMEDIACY) which permits, and even forces, this conclusion. Refusing to accept a temporal view of Mandarin Aspect makes this identity transparent. This conclusion, however, is not generally accepted. Lin (1979.129) posits that 'the progressive aspect zai probably evolved from the spatial preposition,' while Teng (1979.2-3) claims that it is wrong to treat the preverbal zai as derived from the locative zai and that the preverbal zai is 'a manifestation of the temporal function'. We will not be concerned with the historical evolution of the aspectual zai in the present study. Readers may refer to Teng 1979 and Lin 1979 for further discussion.

27 The following discussion is partially based on Huang 1985.

28 A similar claim is also made by Zhu (1982). See Zhu 1982.165 for some examples in which Zhu considers that the use of zhe or le does not give any semantic difference.

29 See Davis and Saunders Ms. for a general discussion of the distribution of attention and for a suggestion as to how other language phenomena may be related to more general cognitive capacity.

30 Ma (1983) studies two patterns for simultaneity in Mandarin expressed by 'V1 zhe V2' and 'yībiān V1 ... yībiān V2'. For a detailed discussion, refer to Ma 1983.

31 The original text does not have zhe here, but it seems to be a typo.

32 Lin (1979.152) has a similar, but not the same, claim: 'In opposition to the unmarked form, the incomplete markers [i.e. zai and zhe, LMH] appear to be indicating that an
event, be it an action or a state, is focused and is developing. While the unmarked form does not specify the shape/structure of the event, the incomplete markers specify that an event is in development with a part accomplished and the rest of it to be accomplished.' For Lin's discussion of zai and zhe, refer to Lin 1979. 81-153.
Chapter Six

Conclusion

We have pointed out in the previous discussion that there are other aspectual markers in Mandarin Chinese in addition to LE, guo, zai, and zhe which have not been treated here. Among these are qǔ, xiàgu & reduplicated verbal forms, which we now examine briefly by way of indicating directions for further research.

6.1 Some other marks of ASPECT

Consider some examples with the aforementioned markers:

(1) a. Tiānqī lěng-qǔ le
   weather cold-QILAI LE
   'The weather has gotten cold'

   b. Tā kū -qǔ le
   he cry-QILAI LE
   'He has begun crying'

   c. Tā tiào-qǐ-shéng-lái le
   he jump-QI-ROPE -LAI LE
   'He has begun jumping a rope'

(2) a. Tiānqī zài lěng-xiàgu, wǒ hū shòubùliào
   weather more cold-XIAQU I will not:able:to:stand
   '(If) the weather continues getting cold, I will not be able to stand (it)'

   b. Shuō-xiàgu
   say -XIAQU
   'Continue talking!'

   c. Tā xiūxí-le yǐhūr jīù zài tiào-xiàgu
   he rest -LE awhile then again jump-XIAQU
   'After resting awhile, he continued jumping'

(3) a. Chángcháng
   taste(Rd)
   'Taste a bit!'
b. Kànkan
   look(Rd)
   'Take a look!'

c. Tiàotiao
   jump(Rd)
   'Jump a bit!'

Qìlái in sentences (1a-c) is called an Inchoative Aspect marker by Chao (1968.251) and an Inceptive Aspect marker by Tsang (1978). Tsang (1978.7), in differentiating this element from LE, regards qìlái as marking 'the beginning of a situation with no emphasis on the previous state, while le focuses on the new situation arising from the change of an old one'. Xiàgù in sentences (2a-c), a Successive Aspect marker (Chao 1968.252) or a Continual Aspect marker (Fan 1984.92) indicating the continuation of an ACTION or STATE. According to Fan (1984.92), this element can be differentiated from the marker zhe in that the former may imply a continuation (of an ACTION or STATE) after an interruption while the latter does not give such an implication. As for the reduplicated verbal forms in sentences (3a-c), we have pointed out in Chapter Two that they designate DIMINUTIVE ACTIONS—to do things a little bit. Chao (1968.252), however, regards 'Reduplication as a tentative aspect', meaning 'just' or 'make a try'. Tsung (1971.113) states that the reduplicated verbal form 'signals the brevity and the tentative nature of the action'. Li and Thompson (1981.232) use the term Delimitative Aspect for reduplicated verbal forms meaning 'doing an action "a little bit," or for
a short period of time'. Apparently, there remains some variety concerning the interpretation of, among other things, the reduplicated verbal forms in Mandarin Chinese. Moreover, some linguists such as Pan (1984) and Li and Thompson (1981) even question or omit the discussion with regard to whether the above-mentioned elements, some or all, are aspectual markers or not.

In the present study, we do not intend to discuss further the semantic contents of the aspectual markers gilai, xiaqu and reduplicated verbal forms in Mandarin Chinese. Nor do we attempt to account for the possible cooccurrence of two or more Aspect markers in the language. Also, we will not elaborate on the (in-)compatibility of Negation (manifested by elements like bu, meiyou or bie) and Aspect markers. All the points mentioned above require further research.

6.2 Concluding remarks

As can be seen, the purpose of this dissertation is tripartite. First, by demonstrating that the traditional view of ASPECT—an interpretation of ASPECT as a verbal category somehow temporally formed—is too narrow and requires broadening, we postulate a fundamental aspectual principle for languages, i.e. the DIFFUSE—FOCUSSED opposition. This basic principle seems to be capable of better characterizing the aspectual systems across languages. Depending on what portion of an EVENT or a larger DOMAIN of
ASPECT in a given language is concentrated on, the general aspectual principle as we propose here may have different formations even within a single language. For example, the notion of INTERRUPTION is more suitable in accounting for the Chamorro Aspect system, and that of REALIZATION seems more prominent in interpreting the Aspect markers in Mokilese. Second, this view of ASPECT, i.e. the one based on the DIFFUSE--FOCUSED opposition, is proven to be not only better able to capture the nature of aspectual systems in languages, but also to be more capable of explaining why and how ASPECT tends to blend with other grammatical categories such as Tense, FOCUS/Voice, ROLE and Mood than is the traditional view. The common semantics of 'well-formedness' is adopted in explaining the interrelationship among the above-mentioned categories. Third, Mandarin Chinese has provided reinforcement for the proposition that the fundamental aspectual principle postulated here is more powerful. It can adequately and consistently characterize the four markers LE, guo, zai and zhe in the language and demonstrate that these four elements can be integrated into one single semantic system.

In sum, we are convinced that the DIFFUSE--FOCUSED opposition, the fundamental aspectual principle, can offer more insightful characterizations of ASPECT systems in languages. More importantly, grammatical manifestations of such a contrast reflect how language users make sense of the
real world around them. Experience may appear to change constantly or to remain unaltered. While constancy is out-of-focus and attracts less one's attention, variation draws that attention and becomes a focus of concentration. Furthermore, each individual may perceive things/happenings from different angles and hence focus on things differently. At this point language must be seen more generally as a manifestation of human intelligence (cf. Davis and Saunders Ms.), and as a consequence, there is no rigid, mechanical way in which we can accurately predict actual language usage. Accordingly, we have not formulated the patterns of Mandarin ASPECT in terms of rules. We may, however, begin to understand the (cognitive) principles that enable the activity that is language, and that must be the ultimate goal of such studies as this dissertation.
Footnotes

1 With a grammatical Object, the marker qǐlái will be separated, as shown in sentence (1c). In addition, in such utterances, i.e. with a grammatical Object, the short form qǐ can be used instead of qǐlái. Examples follow:

(1) a. Tā tiào-qǐ-shéng-lái jiù bù zhīdào xiūxi
   he jump-QI-rope -LAI then Neg know rest
   'Whenever he begins jumping, he does not know to stop'

   b. Tā tiào-qǐ-shéng-∅ jiù bù zhīdào xiūxi
   he jump-QI-rope - then Neg know rest
   'Whenever he begins jumping, he does not know to stop'

(2) a. Tā shuō-qǐ-huà -láí jiù bù jǐdé yào chǐ
   he say -QI-speech-LAI then Neg remember want eat
   fàn
   rice
   'Whenever he starts talking, he does not remember to eat'

   b. Tā shuō-qǐ-huà -∅ jiù bù jǐdé yào chǐ fàn
   he say -QI-speech- then Neg remember want eat rice
   'Whenever he starts talking, he does not remember to eat'

2 Fan (1984.101-02) considers that reduplicated verbal forms in Mandarin Chinese should not be included in the aspectual system but 'Model' [sic]. Li and Thompson (1981), in their discussion of Mandarin Aspect system, do not treat qǐlái and xiaqu as aspectual markers. For detail, see Fan 1984 and Li and Thompson 1981.

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Appendix

The following are the non-conventional symbols used in the transcription of the data in this dissertation (particularly in Eastern Armenian, Finnish, Jakarta Malay, Amharic and Gujarati) and what they stand for.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Pronunciation</th>
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<td>A</td>
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