29 March 2011

Dear SI

This is some
background to

TMA. Hopefully,
it is helpful.

Just skim ch 12 + 13;
we'll use the rest
in classes.

From L. Whaley
Intro to Typology 1997 Sage

12

Tense and Aspect

Part of what it means to be conscious is to have a sense of the passage of time. Time, however, is a great mystery, in large part because it cannot be directly experienced. We only sense that it exists because we have the capacity to remember and note changes from our immediate sense impressions. If we had absolutely no recollection of the past, we would find ourselves to be caught at a single moment endlessly. There would be no inclination of the future because the concept of change would be unimaginable. Needless to say, the notion of time forms a crucial part of our understanding of reality.

It is no accident that language is particularly complicated with regard to describing this mystery of time. In addition to an enormous array of contextual clues, languages have special sets of adverbs and time expressions dedicated just to the task of locating events in time. Perhaps most complex of all, however, are the verbal categories of tense and aspect.

Tense is a grammatical expression of the relationship between two points in time. That is, given two events, one that occurs at time T1 and another that occurs at time T2, tense is used to describe whether T1 came before T2, overlapped with T2, or came after T2. Present and past are the most commonly
expressed tenses. Aspect, on the other hand, is employed to focus on the internal temporal makeup of a situation. It can be utilized to conceptualize an event as extended in time (with a beginning, middle, and end) or as a single point with no internal divisions. Compare the following sentences in (1), which differ with respect to aspect:

(1) a. I read a great novel yesterday.
   b. I was reading a great novel yesterday.

The two sentences in (1) do not differ with regard to tense; both depict that the event of reading (T1) occurred before the time of speech (T2). They do differ, however, in terms of aspect: (1a) treats the event as an unanalyzable whole, whereas (1b) frames the event as being extended in time.

There is a third and closely related grammatical category, mood, that also manifests a speaker's perspective on how an event relates to time. Mood is the linguistic expression of modality, which is a semantic notion about the reality of a situation—that is, whether the event does or does not actually occur, or its possibility of occurring. The following data in (2) differ with regard to modality:

(2) Patricia did/can/may read a book in French.

By use of the auxiliary did, a speaker is asserting that the reading actually occurred at some point in the past. Can, however, makes no claims about the reality of reading. The choice of this auxiliary allows a speaker to state the possibility that the event could occur due to Patricia's capacity for grasping the French written word without any further commitment as to whether Patricia actually has or will read. The auxiliary verb may, for its part, mostly reflects the likelihood, which is neither strong nor weak, that Patricia will engage in the act of reading. In English, modal auxiliary verbs, such as can and may, are used to express modality.1

Keep in mind that the use of tense, aspect, and mood are not direct reflections of temporal reality. They are grammatical devices that are used to relay a particular perspective on this reality. Not surprisingly, the three categories interact in complex and multifaceted ways. For this reason, although native speakers use these categories effortlessly, it is very rare to find a thorough description of tense, aspect, or modality in reference grammars or language texts.

1. Tense

Tense and aspect are typically so closely bound in linguistic expression that it is impossible to analyze one fully apart from the other. It is somewhat easier to demarcate modality. Therefore, I leave a more complete discussion of modality to Chapter 13. In the present chapter, I examine the issues that must be addressed most commonly when describing tense and aspect systems.

1.0. Tense

Tense is considered to be a type of deixis. Deictic elements anchor an utterance to its immediate context. For example, consider the word here:

(3) I have had all kinds of difficulties here.

To interpret what here means, the word must be enmeshed in a particular context. Notice how different the referent of “here” becomes when another sentence is placed before it:

(4) a. I hate Paris. I've had all kinds of difficulties here.
   b. See step two in my design plan. I've had all kinds of difficulties here.

Thus, here shifts its denotation depending on context.

There are many types of deictic expressions: personal pronouns, time expressions such as now and yesterday, demonstratives such as this and that, and so on. Similarly, the category of tense is deictic because to interpret it one must have a context. The temporal reference of “I was tired” changes dramatically if I am telling a story about what I said last week or indicating a fact about my physical state earlier today.

A timeline (Figure 12.1) is often helpful in sorting out the deictic nature of tense. Recall that tense, as a grammatical category, is a mechanism used to indicate that a point in time follows, precedes, or is simultaneous with a reference point. Commonly, the reference point is the time at which the sentence is being uttered—that is, “now.” The diagram exhibits the times that tense might refer to if this is the case. Because the “now” of speech constantly is in flux, so too is the objective reference of tense.
reference. Likewise, an irrealis affix (meaning that the event does not occur in real time) is used for future time or events that had or will have a possibility of occurring. Once again, adverbs can make the precise temporal nature of the event clearer.

Many languages do, of course, have special tense morphology. The way in which they section off the time line (shown previously), however, can vary greatly. Lithuanian (Balto-Slavic: Lithuania) is an example of a language with a tripartite system:

(7)  

a. *dirb-au*  
   work-1S.PST  
   I worked/was working  

b. *dirb-u*  
   work-1S.PRES  
   I work/am working.  

c. *dirb-s-iu*  
   work-FUT-IS  
   I will work/be working.  

(Data from Senn as cited in Chung and Timberlake 1985)

The Lithuanian example, although not common from a cross-linguistic perspective, reflects the notion of tense presented in Figure 11.1. There is distinct morphology for past, present, and future. It is possible, however, to make finer distinctions than those allowed under the tripartite system. In languages with finer-grained distinctions, tense categories can be used to indicate degrees of remoteness in time, as in KiVunjo-Chaga (Niger-Congo: Tanzania). With respect to future time reference, three different verb prefixes may be employed.

(8)  

a. *Mana n-a-i-enda*  
   child FOC-SUB-TM-GO  
   The child is [definitely] going/leaving [soon].  

b. *Msuli n-a-e-i-lei-zeegra*  
   nobleman FOC-SUB-TM-speak  
   The nobleman will [definitely] speak [sometime in the future].  

c. *Mana n-a-e-enda*  
   child FOC-SUB-TM-GO  
   The child will [perhaps] go/leave [sometime in the future].  

(Adapted from Moshi 1994—tone is indicated in her data)
The prefix in (8a) can actually also be employed for an event that occurs simultaneously to the speech event—that is, it can indicate present tense. Hence, Moshi (1994) proposes that this suffix marks immediate events that definitely are occurring or will occur. It can be applied as a future marker only when the occurrence of the future event is imminent. The prefix in (8b) is employed when the event being referred to is not imminent but the speaker still wishes to aver the certainty of its occurrence. The final prefix marks future events that may or may not happen. Such complex semantics are typical in cases in which languages have multiple markers for future tense.

Kivunjo-Chaga also has two prefixes to indicate past tense (9):

9. a. Kite n-ki-a-lya nyama
dog FOC-SUB-TM-eat meat
The dog [as recently as today] ate meat.
b. Kite n-ki-le-lya nyama
dog FOC-SUB-TM-eat meat
The dog [before today] ate meat.

As past events, the contrast in this case does not revolve around the certainty that the event will occur. Rather, the emphasis is on the relevance to the present moment. As Moshi (1994, 137) writes, "The discourse function of the a time marker is to emphasize the relevance of the past event to the immediate context of situation."

Tense systems based on degrees of remoteness can get fairly intricate. For example, Bamileke-Dschang (Niger-Congo: West Africa) has a five-way contrast in both the past and the future (10):

10. Past
   a. taŋ
   b. ɗ uŋ
   c. ɗ ɗ aŋ
   d. ɗ le ɗ aŋ
   e. ɗ le ɗ aŋ

Future
   a. aŋ
   b. ɗ piŋ
   c. ɗ ɗ oŋ
   d. ɗ m aŋ
   e. ɗ f aŋ

Time Frame
   Immediate
   Today
   1 Day away
   2 or more days
   1 Year or more

(Adapted from Comrie 1985b)

The data in (10) show the tense-marking system for the verb "bargain." As can be observed, this particular system employs particles rather than affixes to describe time. The labels that appear on the chart should not be taken too literally. They are helpful heuristic devices in that they allow us to see the relative impact of choosing one particle over another. They are not, however, selected on any strict categorical basis. An event that occurred just yesterday might be framed with several of these particles depending on the speaker's perspective on the event, the modality of the sentence, the context, and so on.

Bamileke is somewhat special in allowing such fine distinctions in types of future reference. Even languages that are similar to Bamileke in having robust tense distinctions usually follow a more common asymmetrical pattern. That is, the past time frame is carved up into more units than the future.

In addition to tripartite and multitune tense distinctions, some languages also function in accordance with a two-way split. Most commonly, the split is between past events and nonpast events (as in Dutch and German). Less commonly, one finds a division rooted in a nonfuture-future distinction.

1.2. Absolute Versus Relative Tense

To this point, all the tense categories we have discussed have been instances of absolute tense. That is, they have depicted a single event that was temporally defined with regard to a single reference point (the time of the utterance). Languages also have ways to relate relative tense. Consider the following situation: At 1:00 p.m., Tom is lying down on the couch. At 1:01 p.m., he turns on the TV with the remote and begins to watch a football game. If I want to describe what has happened, I might say the following:

(11) Lying on the couch, Tom watched the game.

There is no tense indicated on the participle lying. How, then, does one know that Tom's lying on the couch is not a future event that is to happen after he finishes watching the game? There is no chance of this interpretation because participles are understood to have tense relative to the action described by the main verb. Figure 12.2 recasts the sentence on a time line.

The verb watch is placed in an absolute tense that is determined on the basis of the speech time. The time reference of the verb lie, on the other hand, is a relative tense. Its time reference is based on the verb watch. The phenomenon of relative tense is ubiquitous when dealing with nonfinite verb forms (i.e., those that cannot be marked for absolute tense). Relative tense, however, is also relevant to finite verbs. The following is a particularly interesting case from the standard variety of English:
Figure 12.2. The Nature of Relative Tense

(12) a. The teacher said that Theodore was an excellent student.

In cases of reported speech (in bold type), the verb of the subordinate clause gets its tense from the main verb. In (12), the verb was is past tense because said is in past tense. If says were used instead, then present tense would also be used in the reported speech giving is.

This section has by no means touched on all the many issues surrounding the category of tense. Tense is so fully tied to the category of aspect, however, that little more can be said without first addressing the nature of aspect.

2.0. Aspect

Aspect, as explained above, is a mechanism that permits a speaker to conceptualize a temporal quality of an event in different ways. The major aspectual division is between perfective and imperfective. The primary focus of this distinction is on the terminal boundaries of the events involved. An event is cast as perfective if it is viewed as temporally bounded. Conversely, imperfective is employed to make reference to the internal temporal structure of an event. It is not cast as being bounded. The distinction is exemplified by the Mende (Niger-Congo: Benin) data as shown in the following:

(13) a. Musa lo hei-ni
Musa FOC sit-IMP
Musa sits/is seated.

b. Musa lo hei-ma
Musa FOC sit-IMP
Musa is (in the process of) sitting.

(Data from Shawn Boylan, personal communication, 1988)

In (13a), sitting is in the perfective, being expressed as a point in time that has no temporal extension. In (13b), in which the imperfective is used, the focus is on the internal structure of sitting and, thus, the event is taken to be a process.

Another major category of aspect that is often in opposition to perfective and imperfective is the perfect. The similarity with the term perfective can lead to confusion so more and more often linguists use the label anterior in its place. Anterior aspect is used to signal a past event that has enduring relevance to a set reference time. Often, this reference time is the moment of speech (14).

(14) a. I have already done the dishes, so now I don't have to.
   b. The Republicans have taken a majority of the seats in both houses of congress.

In English, anterior aspect is marked by use of the auxiliary have in conjunction with a past participle. When the auxiliary verb is in present tense, the anterior notes that the event depicted carries implications for the moment of speech. The implication may be made explicit (14a), but it need not be. If it is not, context usually suffices to make it clear. Hence, the implication of (14b) might be that a Democratic president will have a harder time passing legislation.

The point of reference for which an anterior verb has relevance may also be another event, as in (15).

(15) By the time John came, I had cleaned the entire house.

Like English, it is common for languages to form the perfect by use of an auxiliary verb in combination with a participle (or other verbal form). Some languages, however, construct anterior aspect by use of verbal affixes. This is true, for example, in ancient Greek (Hellenic) (16):

(16) tas poleis autón par-èi-rêtai
the cities their LOC-ANT-take
He has taken away their cities (and still holds them).
Another common formal distinction made by language is between imperfective and stative aspect. Whereas the imperfective is employed for dynamic events, the stative is utilized to mark states of existence. The following examples are drawn from Meade:

(17) a. maheu     ha-ma  
         chief     die-IMPF  
         The chief is dying.

b. maheu     ha-ngu  
         chief     die-STAT  
         The chief is dead.

Tense and aspect are easily confused because they both specify the temporal characteristics of an event. Consequently, one frequently finds aspectual morphology seemingly functioning as a tense marker. In Mixtec (Oto-Manguean: Mexico), the perfective is frequently employed in clauses conceptualizing past events (18a), whereas the imperfective is used for events contemporaneous with the act of speech (18b).

(18) a. iku       n?       ku?wi     n?  
         yesterday  PRV  sick     IS  
         I was sick yesterday.

b. te?eni      n?       ëxi       n?  
         IMPF,hurt  IS  stomach     IS  
         My stomach hurts.  

(19) iku       ka?wi    wi?i    ini    ya*    sá    n?   neta    ré?  
         yesterday  IMPF,worry, much  inside  3.FEM while  PERF  arrive  3.MSC  
         Yesterday, she was very worried when he arrived.

Although the aspectual system appears to encode absolute tense in these data, there is reason not to analyze them as tense markers. In particular, the distribution of aspect in texts reveals that perfective forms are used to plot the main story line, whereas imperfective forms are used for background information regardless of whether this information is past or present (19).

(20)  Gel-iyor-du-m  
       come-PROG-PST-IS  
       I was coming.  

(Data from Watters 1993)

When tense and aspect markers do arise together in a language, their order is not random. The aspect marker nearly always occurs closer to the verb (Bybee 1985; Foley and Van Valin 1984). This ordering is iconic in that aspect indicates information specifically about the nature of the verb, whereas tense has an entire proposition in its scope. That is, although tense is commonly a verbal category, it is really supplying information about the entire sentence, specifically where the proposition indicated by the sentence is located in time. Because aspect is semantically more tightly associated with the verb, it is formally closer as well.

Up to this point, I have introduced just a few of the major aspectual distinctions that are to be found in language. There are others.

(21) a. I read a great novel yesterday.

b. I was reading . . .  

c. I began to read . . .  

d. I finished reading . . .  

(21) a.  I read a great novel yesterday.

Although the tense of the sentences in (21) make it clear that they all occurred in the past, the differences in aspect allow us to conceptualize the event of reading in various ways. Example (21a), which treats the event as a point without any constituent parts, is perfective; (21b), which treats the event as extended in time, is imperfective. These two oppositions were introduced above. Example (21c), which highlights the beginning of the event, is often called inceptive. Example (21d), which highlights the end of the event, is usually called completive. Note, however, that the expression of inceptive and completive aspect is accomplished here through the creation of a verb + infinitive construction. The aspect is not expressed by a grammatical category (as in (21a) and (21b)).
The choice of aspect profoundly alters the way in which we interpret the event being described. For example, unless the context dictates otherwise, we are prone to interpret (21a) to mean that the entire novel was read in one day. Similarly, (21d) makes it clear that the end of the novel was reached, but the implication is that it had begun at an earlier date. Example (21c) explicitly indicates that the novel was started yesterday, but strongly implies that it was not finished. Finally, (21b) is open to many possible readings, a likely one being that a middle portion of the novel was enjoyed.

These nuances are part of the core meaning of the various aspects. It is not the case that every time a past tense verb in English is placed in the perfective one must take the event to have been completed (cf. “I wallpapered yesterday,” which does not require that the task of wallpapering was completed). How then do such connotations arise? It is due to a number of things, but primary among them is the lexical aspect of verbs (also referred to as Aktionsart) and the sentence constituents that are used with the verb. The influence of these elements on aspect is examined in the following two sections.

2.1. Aspect Versus Aktionsart

Every verb has its own Aktionsart—that is, an inherent aspect that speakers assume the verb to convey unless otherwise indicated. For example, the verb to read is durative. This means that the action described by the verb necessarily lasts for a certain period of time. Compare this with a verb such as to sneeze, which is punctual because the event it describes is not extended in time but happens instantaneously.

The shades of meaning that we typically associate with aspectual categories, such as perfective and imperfective, vary depending on the Aktionsart of the verb (22).

(22) a. The light blinked.
    b. The light was blinking.

In (22a) and (22b), the effect of using perfective and imperfective aspect with durative verbs was partly to demarcate completion versus noncompletion. With punctual verbs as in (22), the effect is somewhat different. The perfective form describes a single blink in (22a). The imperfective, on the other hand, encodes an iterative (repetition of a single action) situation.

Languages appear to form the same Aktionsart classes in their lexicons. At the coarsest level, there are four such classes (Dowty 1979; Foley and Van Valin 1984; Vendler 1967): states, achievements, accomplishments, and activities. States, as the name implies, are predicates that denote properties (e.g., to be yellow and to be broken) or nondynamic circumstances (to see and to exist). Activities are dynamic events (e.g., to cry, to sneeze, and to run). Achievements are predicates that indicate a change of state (to yellow or to break—as in “the window broke”) or dynamic circumstances (to notice and to smell). Accomplishments are predicates that involve causation (to show or to break—as in “John broke the window”).

States and activities are conceptually simpler than achievements. Thus, note that an achievement verb can often be paraphrased to subsume a state or activity predicate: “the window broke” might be paraphrased as “something occurred such that the window became broken.” In some sense, the achievement to break can be said to entail the state be broken. Similarly, accomplishments entail achievements. The sentence, “John broke the window,” could be paraphrased as “John did something such that the window broke,” again an indication that an accomplishment is conceptually more complex than an achievement. In English, the four verb classes are usually lexically differentiated, but Van Valin (1993b) notes that in some languages derivational morphology is employed to capture the conceptual relationship between states, achievements, and accomplishments.

<table>
<thead>
<tr>
<th>State</th>
<th>Achievement</th>
<th>Accomplishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>tóknu-y (“A is underground”)</td>
<td>tóknu-y (“A goes underground”)</td>
<td>máknu-y (“B buries A”)</td>
</tr>
<tr>
<td>la:kčahu-y (“A is closed”)</td>
<td>la:kčahu-y (“A closes”)</td>
<td>məla:kčahu-y (“B closes A”)</td>
</tr>
<tr>
<td>paša-y (“A is different”)</td>
<td>tupaša-y (“A changes”)</td>
<td>məpaša-y (“B changes A”)</td>
</tr>
</tbody>
</table>

(Data from Watters 1988 as cited in Van Valin 1993b)

These data from Tepexhua (Penutian: Mexico) demonstrate how three of the four Aktionsart classes can be derived from a common root rather than lexicalized as different verbs as in English.

Regardless of how the four classes are evinced in a language, they tend to have certain aspectual categories associated with them. For example, states resist being placed in the imperfective because they are nondynamic. Therefore, in American English it is awkward to say “the banana is being yellow”
or "I was seeing the movie." States, as nondynamic verbs, cannot be punctual because the essence of punctuality is a dynamic event that happens almost instantaneously. Activities verbs, however, can be punctual (to flash or to sneeze), and because achievements and accomplishments can be built on the conceptually simpler class of activities, one also predicts these classes to contain punctual verbs. This prediction is borne out: "the twig snapped" (punctual achievement) and "I snapped the twig in half" (punctual accomplishment).

2.2. Nonverbal Effects on Aspect

Verbal categories and Aktionsart are not the only linguistic elements relevant to aspect. Changes in aspect can also be encoded by adverbial expressions, prepositional phrases, and nominals. Consider the aspect manifested in the following sentences headed by the verb to flash:

(24) a. The beacon flashed.
   b. The beacon flashed five times in a row. (Data from Talmy 1987)

As noted previously, flash is an activity verb that, because it expresses a rapidly completed event, is punctual when it occurs in the past perfective (24a). This single punctual event, however, becomes iterative when accompanied by an expression such as "five times in a row" (24b). The effect is similar to placing the verb in the progressive ("the beacon was flashing"), although the iteration has an explicit endpoint in (24b).

Another much cited instance of the significance of nominal features for aspect can be observed in transitive clauses. The verb's aspect can be affected by whether the direct object refers to a specific entity (25a) or not (25b).

(25) a. The boy scout troop ate the pizza.
   b. The boy scout troop ate pizza.

When the article precedes pizza in (25a), the verb has a completive sense: The eating had a definite endpoint. In (25b), there is no such implication.

3.0. Summary

In this chapter, I have described some of the typical mechanisms that are employed within language to express time reference, the temporal relationship between events, and the temporal contours of an event. Frequently, languages develop grammatical categories—tense and aspect—to carry out this function.

The semantic relationship between tense and aspect is tight. When both categories exist in a language, the combinations of specific tense morphemes and specific aspect morphemes can encode subtle distinctions. Where either one of the verbal categories is absent from a language, the remaining one can be extended to cover some of the same functional ground.

In addition to the grammatical categories of tense and aspect, other features of language play a role in determining how time reference in sentences is understood. One particularly prominent feature in this regard—Aktionsart—was discussed in Section 2.0. Another crucial feature, the category of mood, is discussed in Chapter 13.

4.0. Key Terms

- Absolute tense
- Achievements
- Accomplishments
- Activities
- Aktionsart
- Aspect
- Atelic
- Completive
- Deixis
- Durative
- Imperfective
- Inceptive
- Iterative
- Lexical aspect
- Modality
- Mood
- Perfect (anterior)
- Perfective
- Punctual
- Relative tense
- States
- Stative
- Telic
- Tense
Notes

1. Particularly within the tradition of Indo-European linguistics, the term mood has been restricted to verbal inflectional systems. I will use it in a slightly broader sense that groups inflectional mood, modal auxiliary verbs, and modal particles together.

2. The category of imperfective is also referred to as continuous or progressive in the literature. It is not always clear what, if any, difference scholars take the difference between them to be. In research on aspect systems, there has been an effort to make the distinction between the three clear. Comrie (1976a), for example, proposes that continuous refers to imperfectivity not based on habitually and progressive to be a combination of continuous meaning and nonstative meaning. Bybee et al. (1994) offer a useful discussion of aspect definitions.

3. Bybee (1985) takes perfect-anterior to be a tense rather than as an aspect category on the basis of its semantics. It functions more to locate an event in time than to depict the internal temporal structure. As Bybee notes, however, perfect-anterior morphemes often co-occur with tense markers in languages (such as ancient Greek) so that there is not the paradigmatic contrast one usually finds with members of the same category.

4. In Bybee’s (1985) sample, tense affixes never occurred closer to the verb stem than aspect affixes.

5. It is possible that the four-way distinction outlined here is based on three main semantic properties: telicity, stativity, and causation. Telic events are those with a built-in endpoint, atelic are those with no inherent end point (read or swim), and stative are nonevents (be red or appear tall). The feature of causation operates in the same way as the system outlined here.

Mood and Negation

Mood is a grammatical category through which speakers of a language can indicate whether they believe that an event or state actually occurs, does not occur, or has the potential to occur (1). This conceptual domain is called modality.

(I) a. ja-ṇani-yug
    3.REAL-talk-AUX
    He is talking.

b. niñajag ṇani-yug
    PROHIB talk-AUX
    He doesn’t/can’t/will not talk.

c. (y)a-ṇani-yug
    IRR-talk-AUX
    He might talk.

(Data from Merlan 1981)

As the sentences from Mangarayi (Australian: Australia) reveal, the actuality of the event of talking, or more precisely the speaker's estimation of the
actuality, can be determined on the basis of prefixes or preverbal particles. In (1a), the utilization of a third-person realis prefix relays the fact that the talking did occur. In contrast, the prohibitive particle in (1b) indicates the nonoccurrence of the event (NB, negation interacts with other modal categories, but it does not constitute a mood category itself—further discussion of this fact is provided in Section 2.0). In (1c), an unrealis marker denotes a future possibility that the talking will happen.

It was noted in passing in Chapter 12 that mood often works in consort with tense and aspect in languages to capture the temporal nature of a linguistic utterance. Although this is certainly true, there is a strong sense in which mood differs from the other two categories. Aspect describes the temporal contours of an event as it occurs in time; tense depicts where in time the event occurs relative to the moment of speech or some other event. Modality, on the other hand, is ontologically more basic. It is concerned about the truth value of statements, revealing a speaker's attitudes and assumptions regarding the reality of what he or she is describing.

In this chapter, I introduce some of the distinctions that linguists make when describing modality. One caveat is in order: Because modality is reflected in languages in such different ways, it is nearly impossible to give it a simple characterization that is then applicable to all languages. The discussion below only touches on the mere basics of this complex topic.

1.0. Traditional Categories of Mood

Traditionally, grammarians and linguists have categorized sentences into major types based on what mood is employed. Those sentences that directly assert the truth of some proposition (2) are said to be in the indicative mood (2).

(2) 1 shot the sheriff, but I did not shoot the deputy.

Both the clauses in (2) are indicatives despite the fact that the first is affirmative and the second is negative. This is because they are both assertions about the truth value of the propositions they describe.

Cross-linguistically, verbs in declarative sentences tend to bear no special formal marking. In a similar vein, for many languages (e.g., most within the Indo-European language family), there is also no special verbal morphology used in forming questions. Therefore, the category of indicative in these languages is extended to include the questions such as that in the following:

(3) Why were you carrying a gun?

Note that most questions presuppose a proposition with a positive truth value. For example, the question in (3) assumes “you were carrying a gun.” In this way, they bear some similarity to declarative sentences (i.e., statements) such as that in (2).

In some languages, the morphology of questions is distinct from that of declarative sentences. In these languages, in which a unified category of indicative modality seems unwarranted, a separate mood category, interrogative, is needed, as in Japanese (Japanese-Ryukyu: Japan):

(4) a. Kore wa hon desu yo
   this TOP book is DECL
   This is a book.

b. Kore wa hon desu ka
   this TOP book is INTER
   Is this a book?

(Data from Kuno 1973)

Another traditional category of mood is subjunctive. The range of uses for the subjunctive differs a great deal from language to language, but commonly it is used to express an attitude of uncertainty on the part of the speaker (5a) or a hypothetical situation (5b).

(5) a. epilath-ōmetha tēs oikade hodou
   forget-1PSBJV the homeward road
   We may have forgotten the way home.

b. an de tis anth-ist-řtai
   PTL PTL any against-stand-3SBJV
   If anyone opposes us . . .

In these ancient Greek (Hellenic) sentences, the subjunctive mood is identifiable from the set of subject agreement markers that are employed. Had the
sentences been indicative, a different agreement marker would have been used. In (5a), the subjunctive is used in an independent clause. Example (5b), however, is more representative of typical subjunctive use from a cross-linguistic perspective in that it is employed within a dependent clause.

Commands are said to be in the imperative mood. Not uncommonly, imperatives are encoded by using a verb form that is morphologically deficient. That is, the imperative verb is missing morphology that occurs in other moods. The nature of an imperative is to issue a command to a listener. Consequently, imperative clauses are usually understood to have second-person subjects. In English, this fact is obscured because overt subjects are not permitted in imperatives and the agreement morphology for second person happens to be zero marking. In other languages, however, the second-person subject is overtly reflected in the verb agreement. The following Burushaski (Isolate: India and Pakistan) forms demonstrate this fact:

(6) a. et-i
doi-2s
Do (something)!
b. et-in
doi-2p
(You two) do (something)!

(Data from Lorimer 1935)

If a language does not restrict the subjects of commands in this way, the mood is often said to be optative rather than imperative.

(7) a. hiwêt-e-c
run-vol-2p
Run!
b. hiwêt-e-nil:s
run-vol-3p
Let him run!
c. hiwêt-e-m:a:i
run-vol-1p
Let us run!

(Data adapted from Freedland 1951)

These data, from Sierra Miwok (Penutian: United States), exhibit commands being formed using the volitional suffix -e:. In (7a), the subject is second person, so the mood is straightforwardly imperative. In (7b) and (7c), however, the subject reference is to third singular and first plural, respectively. On this basis, the mood might be said to be optative rather than imperative.

This is an unfortunate use of the term optative, however, because there are languages, such as ancient Greek, that have a morphologically distinct optative category and allow non-second-person agreement in commands (8).

(8) Optative
   1s didask-oimi “I hope to teach”
   2s didask-ois “You hope to teach”
   3s didask-oit “He hopes to teach”
   1p didask-oimen “We hope to teach”
   2p didask-oite “You (plural) hope to teach”
   3p didask-oien “They hope to teach”

Impressive
   1s didask-ou “Teach!”
   2s didask-sto “Let him teach”
   3s didask-sthe “(You all) teach!”
   1p didask-sthon “Let them teach”

On the basis of morphological form, it is best to analyze Greek as having an optative and an imperative mood with the latter permitting both second- and third-person subjects. The core function of the optative is to express desires, whereas the imperative is employed to issue commands or exhortations. Because of languages such as Greek, it is probably best, for those languages that lack a distinct optative category, to posit a single imperative mood, even if non-second-person forms can be used as subjects.

- 1.1. Deontic Versus Epistemic Modality

In addition to demarcating the major categories of mood, it is also necessary to make a distinction between deontic and epistemic modalities. In short, deontic modality deals with obligation or desire, whereas epistemic modality deals with degrees of possibility. The following are examples of deontic modality:

(9) a. John must come tomorrow.
   b. Gas stations should keep their restrooms clean.
   c. We really ought to water the plants.

The sentences in (9) are revealing the speakers' beliefs about obligations that various individuals have. The same English auxiliaries can be used in the expression of epistemic modality (10).
(10) a. He must have arrived here earlier today.
   b. My guess is that it should rain tomorrow around 6:00 p.m.
   c. She left ten minutes ago. She ought to be there soon.

Although the formal expression of epistemic modality in (10) is the same as that described previously, the sense of these expressions has shifted. For example, (10a) differs from (9a) by not imposing any obligation on the subject of the sentence. Rather, it designates the degree of certainty that the speaker expresses about the actuality of the event.

As you might imagine, determining whether deontic or epistemic modality is involved in a proposition can be a difficult enterprise. Frequently, the interpretation given to a modal auxiliary (or affix or particle, depending on the language) rests on a complex bundle of factors including tense, aspect, intonation, context, and nonverbal cues. In (10a), for instance, the fact that the event being described is cast in perfect tense (as indicated by the use of the auxiliary have + a past participle) is what makes it epistemic rather than deontic.

### 1.2. Evidentials

One of the primary considerations involved in epistemic modality is the degree of certainty that speakers wish to convey. Their decisions about how to express their level of certainty are based on all kinds of information. Therefore, to say “it must have rained last night” is to indicate confidence, although not complete confidence, that rain did actually fall. When we hear this sentence, we naturally assume the speaker has reliable evidence such as the fact that there are puddles in the street.

Some languages develop a special set of markers, called evidentials, which more explicitly convey the quality of information on which an assertion is based. Generally, evidentials are not treated as a type of mood category, but they do bear an obvious affinity to epistemic modality (see Palmer 1986 for a discussion). The following Tuyuca (Equatorial-Tucanoan: Brazil and Columbia) sentences exemplify evidential marking:

(11) a. dīga apé-wi
    soccer play-VISUAL He played soccer (I saw him).

b. dīga apé-wi
    soccer play-nonVISUAL He played soccer (I heard him playing).

c. dīga apé-yi
    soccer play-APARENT He played soccer (I have evidence though I didn’t actually witness the game in any way).

d. dīga apé-yi
    soccer play-SECONDHAND He played soccer (Someone told me).

e. dīga apé-hi
    soccer play-ASSUMED He played soccer (It seems reasonable that he did).

(Adapted from Barnes as cited in Palmer 1986)

These sentences can all be translated in the same way. The choice of a verbal suffix, however, serves as an indication of the quality of the information. Consequently, the evidential system is a way of relaying information very much like epistemic modality.

### 1.3. Reals Versus Irreals

In the preceding sections, you have been introduced to several kinds of moods and a major division between types of modality. Languages, however, vary considerably as to how much of their morphology and syntax they devote to making all of these distinctions explicit. To adequately describe some languages, one would need to untangle complex verbal morphology or sets of auxiliaries to explicitly describe the various moods and modalities. In other languages, various mood distinctions are collapsed. In such languages, there is frequently a morphosyntactic division between reals and irrealis modality.

Simply stated, reals is a description of situations that are or were real. Irreals marking depicts situations that were not or are not yet a reality, only possibilities. Certain of the mood categories naturally conflate under the rubric of reals and irrealis. Subjunctive, optative, and imperative moods, for example, all relate propositions that have not actually occurred yet—that is, the propositions are not “real.” Consequently, some languages treat these notionally distinct moods identically in their morphology. Palauan (Austronesian: Palau) is one such case.

(12) a. Mo-lim a kerum
    2SG(HYP)-drink the medicine
    Drink your medicine!

b. Ku-rael əl mo ər a blik
    1SG(HYP)-travel LINKER go LOC the house
    I'd better go home.
c. Do-mengur cr tiang
iphyp-eat loc here
Let's eat here.
(Data from Josephs 1975)

In each of these sentences, a hypothetical (equivalent to irrealis) person prefix is employed. The typical interpretation when a second person is subject is a command (12a). First-person subjects give rise to a sense of obligation (12b), and third-person subjects create an exhortation.

Even in languages in which imperatives, subjunctives, optatives, or all three comprise separate morphological categories, the uses of the categories often encroach on each other's semantic territory. Thus, subjunctives can have the force of imperatives or vice versa. There is also a clear overlap in the meaning of irrealis moods and the future tense because again all are used to capture events that have not yet happened. Some languages capitalize on this similarity and simply use a single morphological category.

(13) a. Ma-khúži kte
is-sick fut
I will be sick.
b. Yf-kta iyécheča
go-fut perhaps
It is likely that he will go/He ought to go.
c. Hc itháčha-kta čhf
that chief-fut want
That one wants to be chief.
(Data from Boas and Deloria as cited in Chung and Timberlake 1985)

What has been called the future tense marker in Lakhota (Almosan-Keresiouan: United States and Canada) actually marks both simple futures (13a) or irrealis modality (13b and 13c).

2.0. Negation

The negative is a grammatical category employed to deny the actuality of an event or some portion thereof. Negation, however, can occur in any of the traditional mood categories (e.g., “Don't do that!” is a negative imperative), and a negative sentence can be uttered with complete certainty or with some doubt. Thus, like evidentials, negation is not generally treated as a type of mood but as a unique category that is related. When examining the means by which languages form negative sentences, one must distinguish between the standard negation strategy (i.e., the basic way in which languages negate clauses) from secondary modifications (i.e., other features that accompany the standard negation device rather than accomplishing negation by selves). Inga (Equatorial-Tucanoan: Columbia) provides a clear example of the difference:

(14) a. Rírcan-chi-mi
we.went-APPRM
We went.
b. Mana rírcanchi-chu
NEG we.went
We didn't go.
c. Rírcanchi-chu?
Did we go?

The negative clause in (14b) is signaled by the presence of the particle mana and the suffix -chu. Rather than considering both to form the primary negation strategy, we relegate -chu to secondary status because it appears in non-negative sentences such as (14c). Instead of describing this suffix as a negative marker, it is more accurate to say that it marks nondeclarative sentences and, as such, it must accompany the primary negation strategy.

This is not to say that languages never distribute negation over a clause. The move to label verbal affixation as a secondary strategy was not motivated by the fact that it appears in a distinct structural position apart from the negative word mana. Rather, it was because the suffix -chu could be demonstrated to have a broader function than sentence negation. Indeed, there are many languages in which the primary negation strategy involves multiple elements. Standard French (Italic: France) furnishes a familiar example. Sentence negation is accomplished using a combination of negative particles—for example, ne...pas (15):

(15) Pierre ne parle pas français
Pierre NEG speak.3S NEG French
Pierre does not speak French.
Double marking such as this is not common, but neither is it rare. In a 345-language sample, Dryer (1988b) found 20 languages that obligatorily used multiple elements to mark negation and several others that did so optionally. He suggests that there is a simple semantic explanation for this fact: "Negative morphemes carry a large communicative load in the sense that they carry an important part of the message. If a hearer fails to hear the negative morpheme in a sentence, they will have fundamentally misunderstood the sentence" (102). Therefore, although the double marking of negation is not economical, it still occasionally develops in languages to assist in the accurate identification of negative sentences.

2.1. Standard Negation Strategies

There are three basic standard strategies that languages employ to negate sentences: (a) a negative particle, (b) a negative auxiliary, or (c) a negative affix (Dahl 1979). In the first case, the negative marker may be invariant, as in English, or there may be a variety of negative forms (16), as in Mandarin Chinese (Sinitic: China).

(16) a. Tā bù hē jǔ
   3S NEG drink wine
   He/she does not drink wine.
b. Tā méi kāi mén
   3S NEG open door
   He/she didn’t open the door.
c. Bié dòng
   NEG move
   Don’t move!

(Data from Li and Thompson 1981)

The choice of which negative is used in Mandarin is, in part, determined by which verb is used in the clause. Verbs denoting states take one negative particle (16a), whereas verbs denoting accomplishments take a different one (16b). As Li and Thompson (1981, 417) write, “méi negates the completion of an event.” The mood of the sentence, however, can also determine which alternate appears (16c).

The second standard negative strategy, using an auxiliary verb, is found in Evenki (Manchu-Tungusic: Russia):

(17) a. Bi dūkùwūn-ma duku-cā-w
   I letter-OBJ write-PST:IS
   I wrote a letter.
b. Bi dūkùwūn-ma 0-cā-w duku-ra
   I letter-OBJ NEG-PST:IS write-PART
   I didn’t write a letter.

(Data from J. Payne 1985b)

In Evenki, the negative (17b) takes the form of a finite verb—it is inflected for tense and subject agreement—and the event that is being negated is put in a subordinate form.

Finally, negative affixes can be used as the primary means to indicate negated sentences. This is true in Maasai (Nilotic: Kenya):

(18) m-a-rany
    NEG-1S-sing
    I do not sing.

(Data from Tucker and Mpaaye 1955)

Cross-linguistically, there is a tendency for languages with affixal negation to use prefixes (Bybee 1985). This is a somewhat unexpected property given the overall suffixing preference that exists in language (see Chapter 7). The prefixing preference for negation, however, is likely tied to the fact that negative auxiliaries and particles, which are generally the historical sources of negation, tend to be preverbal. Verb-subject-object (VSO) languages always place the negative preverbally, and SVO languages nearly always do (Dryer 1988b).

The morphological character of a language largely determines the type of negative strategy employed. Highly agglutinative languages commonly use negative affixes, whereas fusional languages do so far more infrequently. Negative particles are fairly widespread, but they are extremely common in languages that fall on the isolating end of the Index of Fusion.

2.2. Secondary Modifications

There is a host of kinds of secondary modifications of negative structures. In this section, we examine the most common of these. The first is a change in word order. This may involve minor constituents, as in some English negatives in which the subject and auxiliary are transposed (19), or it may
In other languages, there is a neutralization of tense and aspect distinctions in negative sentences (21).

(21) a. giź-ð
   write-3S.nopst
   He writes.

b. giź-as
   write-3S.pul
   He will write.

c. o-z giź
   NEG-3S write
   He doesn’t-won’t write.  
(Data from Payne 1985b)

The Komi (Finno-Ugric: Russia) clauses in (21a) and (21b) reveal a contrast between nonpast and future tense. In the negative, however, the tense distinction is not made, leaving the meaning ambiguous between a present and future reading.  

Changes in case marking are yet another secondary modification of negatives that is found in natural language. Russian (Baltic-Slavic: Russia) is much discussed in this regard. Generally, direct objects in Russian appear in accusative case, although in a negative sentence they may also appear in the genitive (see Neidle 1983).

2.3. Scope and Constituent Negation

We have limited our attention so far to examples of negation of a simple sentence. However, the interpretation of negative sentences is greatly complicated when they have more complex morphosyntax (22).

(22) a. John deliberately didn’t touch Bob.
    b. John didn’t deliberately touch Bob.

Notice that these two English sentences mean radically different things. In (22a), John does not touch Bob and his restraint is premeditated. On the contrary, in (22b) John does touch Bob, but the contact is accidental. This divergence in meaning arises because the negative has different scope in the two sentences. In (22a), it has scope over the verb phrase touch Bob. In (22b), it has scope over deliberately touch Bob. The operation of scope is a complicated topic and one that I will not delve into here. For present purposes, suffice it to say that at the clause level negatives tend to minimally have scope over everything that occurs after them, although in certain circumstances and languages this principle does not hold.

Dryer (1988b) and Bybee (1985) both suggest that the predilection for negatives to be preverbal is a reflection of their scope properties. Again with regard to the clause level, negatives almost invariably have the verb in their scope and, therefore, if scope tends to be determined in a rightward manner, it stands to reason that there should be a corresponding preference to place negatives preverbally.

3.0. Summary

The concern of this chapter has been to determine some of the mechanisms that arise in language to express speakers’ attitudes about the propositions they are relaying: obligation, necessity, certainty, etc. A significant fact about these mechanisms, one that I have left implicit throughout most of the discussion, is that languages rarely develop a single system to express modal notions. Although many languages do have a set of grammatical morphemes (such as a set of modal auxiliaries or verbal inflections) that bear much of the
burden in expressing mood, these morphemes crucially interact with other facets of the grammar (such as tense, evidentials, negation, etc.) to reflect modality. For this reason, mood is one of the more difficult aspects of human language to compare cross-linguistically.

4.0. Key Terms

<table>
<thead>
<tr>
<th>Declarative</th>
<th>Irrealis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deontic modality</td>
<td>Negative</td>
</tr>
<tr>
<td>Epistemic modality</td>
<td>Optative</td>
</tr>
<tr>
<td>Evidentials</td>
<td>Reais</td>
</tr>
<tr>
<td>Imperative</td>
<td>Scope</td>
</tr>
<tr>
<td>Indicative</td>
<td>Subjunctive</td>
</tr>
</tbody>
</table>

Notes

1. Sadock and Zwicky (1985) found this strategy used in about half of the languages that they surveyed for imperative marking.
2. This example was provided by Stephen Levinsohn. Similar data are reported in Cole (1982).
3. Dahl (1979), using a 240-language sample, arrives at the opposite conclusion. As Dahl himself admits, however, the sample was heavily biased toward verb final, suffix-dominated languages.
4. It is not true, however, that Komi makes no tense distinctions in negative sentences. A different auxiliary is used for past tense.

There is no question that language is put to use for many different purposes. It is used for developing and destroying relationships, for establishing group solidarity, for thinking, for affirming and determining social position, for education, for aesthetic reasons, and just for fun. At the core of each of these functions is the truism that language operates as a medium through which we can interact with one another. For verbal communication to expedite human interchange, it must, at a minimum, provide ways to present information, to glean information, and to manipulate behavior. When speakers engage in these linguistic pursuits, they are said to be committing a speech act. Given how basic such communicative needs are, it comes as little surprise that languages conventionalize certain constructions to perform each of them. That is, a package of grammatical devices (morphemes, word order, intonation, etc.) evolves to meet these fundamental requirements of communication.
A few trees

The structure for an epistemic modal, I suggest, is as in (2):\(^3\)

(2) \[\text{TP} \rightarrow \text{T'} \rightarrow \text{T} \rightarrow \text{MP} \rightarrow \text{M'} \rightarrow \text{M} \rightarrow \text{AspP} \rightarrow \text{Asp} \rightarrow \text{vP} \rightarrow \text{v'} \rightarrow \text{VP} \rightarrow \text{V'} \rightarrow \text{v} \rightarrow \text{NP} \rightarrow \text{V} \rightarrow \text{might} \rightarrow \text{be} \rightarrow \text{she} \rightarrow \text{reading} \rightarrow \text{a book}\]

So, as in e.g. Thráinsson & Vikner (1995), epistemics are raising verbs, but I will argue they originate in M. As can be seen from adverbs and negation (see below), they then move to T.
situations such as boundedness, uniqueness, etc. Thus, it follows that Vendler’s quasipartition has nothing to say about aspectual construal. To avoid misunderstanding, even though my discussion of Vendler’s paper is critical, it does not take away much from my long-standing admiration for this essay.

In section 2.1–2.4, Vendler’s proposal will be analysed in detail. It will be shown that it is based on a cross-classification involving two parameters. In section 2.5–2.9, some proposals based on Vendler and Kenny will be examined with respect to their claim that they use aspectual classes explanatorily. They do not, as I shall point out. None of the authors discussed use ‘their Vendler-classes’, because when it comes to aspectually relevant generalizations, classes are simply grouped together. The analysis of their proposals makes it possible to focus more closely on the real parameters involved. These parameters are discussed in section 2.10. In section 2.11, I will briefly discuss a temporal ontology using Vendler classes and containing operators relating them.

2.1 Vendler’s time schemata

Vendler used the following ‘time schemata’ to characterize his verb classes:

- State: A loved somebody from t₁ to t₂ means that at any instant between t₁ and t₂ A loved that person.
- Activity: A was running at time t means that time instant t is on a time stretch throughout which A was running.
- Accomplishment: A was drawing a circle at t means that t is on the time stretch in which A drew that circle.
- Achievement: A won a race between t₁ and t₂ means that the time instant at which A won the race is between t₁ and t₂.

This is Vendler’s own wording. I have underlined the terms ‘instant’ and ‘stretch’ to mark one of the two crucial parameters involved, the other being the one italicized by Vendler himself, viz. the (in)definiteness of the temporal unit involved, expressed by any, a and the in (106).

With Galton (1984) and Hoeksema (1984), I share the opinion that Vendler’s division must be analysed as a partition in which the four classes are intended to be on an equal footing. Many authors ignore this feature of Vendler’s division. Essentially, (106) induces a matrix: States and Processes share the property of pertaining to non-unique, indefinite temporal entities; States and Achievements pertain to instants, whereas Activities and Accomplishments are conceived of as processes going on at time stretches; and finally

<table>
<thead>
<tr>
<th>Table 1</th>
<th>The four ‘Vendler-classes’ can be derived from two underlying parameters, here taken as features: [+Process] and [± Definite]</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Definite</td>
<td>+Process</td>
</tr>
<tr>
<td>-Definite</td>
<td>State</td>
</tr>
<tr>
<td>+Definite</td>
<td>Achievement</td>
</tr>
</tbody>
</table>

Achievements and Accomplishments involve unique, definite temporal units.

This is captured in Table 1. Anticipating the discussion of the criteria pertaining to the opposition Stretch vs. Instant below, I have italicized the phrase processes going on because it is crucial to the interpretation of the opposition Stretch vs. Instant: processes going on in time require there to be stretches to ‘go on in’. In view of this, the division based upon (106) will be constructed as Table 1.

Vendler’s criteria pertaining to the vertical division in Table 1 will be called the Continuous Tense Criteria (CTC); the horizontal division will be examined under the heading of Definiteness Criteria (DC). In the next two sections, these criteria will be investigated.

2.2 Continuous Tense Criteria

These criteria involve the opposition between continuous and non-continuous tense. The most important one is the ProgF: Accomplishment verbs and Activity verbs can have a Progressive Form, whereas State verbs and Achievement verbs cannot have it. This is illustrated by the following data, where the judgments are Vendler’s:

(107) a. *I am knowing, she is loving him, he is possessing the house, he is ruling the country (States)
    b. He was running, she is swimming, they are pushing the cart (Activities)
    c. She is running a mile, he is drawing a circle, he was eating a sandwich (Accomplishments)
    d. *She was recognizing him, he was reaching the top, she was winning the race (Achievements)

The sentences in (107a) and (107d) are starred to indicate that they are meant to exclude the Progressive Form. ProgF seems to be based on the parameter [± Process] in Table 1, which in its plus-value [+Process] pertains to processes going on in time. As Vendler put it: ‘running, writing and the like are processes...”
going on in time, that is, roughly, that they consist of successive phases following one another in time (p. 99).

ProgF has not been accepted as a solid criterion by a great many authors, who noted that sentences such as (108) and (109) are acceptable (e.g. Leech 1971: 1–27; Conrie 1976: 37f.; Vlach 1981: 279ff.; Mourelatos 1978: 417):

(108) I am living in Amherst
(109) I am assuming that you will come tonight
(110) The dead man is hanging there to deter the population
(111) Mr Smith is standing by the Nile
(112) You are looking well
(113) He is being ill
(114) She is winning this game
(115) He is dying
(116) She was reaching the top
(117) Look at the screen, the Challenger is exploding now
(118) He is discovering now that he is a homosexual
(119) Manufacturers were beginning to find it difficult to meet the dates

Putting aside the observational inadequacy of ProgF, however, one can easily see that it does not do what it is assumed to do. This becomes clear from the choice of examples like (107a)–(107d), which shows that ProgF is factually based on another criterion, namely the opposition between expressing or not some specific sort of agentivity which is absent in (107a) and (107d), showing up in (107b) and (107c) though. But examples like (120)–(124) are non-agentive; (122) and (124) cannot even be taken as quasi-agentive:

(120) The weather is developing a strange pattern
(121) Colgate is starting to score some goals of its own
(122) Imports are increasing in price as a reflection of the weakening dollar
(123) Two years ago these operations were not making any money
(124) We are at a point here where small things are mattering

The problem appears to be that ProgF is used to cover two quite different semantic factors. It is said to pertain to successive phasal progress in time, but it is also tied up with the concept of agentivity. Thus, it is strongly suggested that these two factors are identical, which they are not; or that they are closely related, which they are not either. In Table 2, it is shown (a) that the concept of agentivity is not essentially tied up with the use of the Progressive Form, and (b) that the use of the Progressive Form is not essentially tied up with the crite-

Table 2. The use of the Progressive Form is independent of the question of whether a verb expresses Agentivity or Progress in time

<table>
<thead>
<tr>
<th></th>
<th>Agentive</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>He is running</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>He is ignoring me</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Prices are increasing</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Small things are mattering</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

rior of Progress in time, though it is more closely related to temporality. Emmon Bach (pers. comm.) pointed out that in stories the Progressive Form can pertain to States in such a way that the objects which are in a given state are temporarily experienced by the narrator (Galton 1984; Dowty 1979). Thus, a sentence like The village was lying in the valley seems to report a state of a village as seen by the narrator who is telling the story as if he just had entered the valley. The use of the Progressive Form tends to actualize its ephemeral nature: the state is reported from the point of view of the narrator. It would be natural to say that the lying-state of the village is presented here as temporarily present.

Let us now have a look at the negative side of ProgF: States and Achievements. Undoubtedly, the important role of agentivity in the analysis of temporal phenomena in the work of both Vendler and Kenny (1963) is due to Ryle (1949), who also led them back to Aristotle. In this perspective, it is clear why Vendler put States and Achievements in one category: to distinguish Achievements from Accomplishments, he argued that the former have State-like properties. However, do States and Achievements form a natural class?

It can be observed that *She is loving him in (107a) is rejected on different grounds from *She was recognizing him in (107d). In the latter case one could say, following Vendler's description of Achievements for the moment, that there is some temporal unit but there is no room within the bounds of a point, because there are no bounds: points are atomic. In the case of States, some sort of universal quantification over a certain time stretch is assumed. Galton makes the same point from a slightly different angle by pointing out that Vendler's state-verbs lack continuous tenses because their meaning is already necessarily continuous in nature, so a continuous tense would be superfluous; while achievement-verbs lack continuous tenses because their meanings, involving as they do the idea of punctuality, are incompatible with continuity. (1984: 71)
Vendler introduces other Continuous Tense Criteria to strengthen his case, but as formulated most of these turn out to be tests for agentivity. A clear example is the so-called do-criterion applied to the difference between *Do you know that she is ill?* (answer: *Yes, I do* ), and *Do you run?* where *Yes, I do* expresses an intention. Clearly, this criterion cannot be used in non-animate cases like (120)–(124). Yet, the do-criterion has an important place in Vendler’s exposition. Dowty (1979) does not have it.27

Connected with the use of do, there is a criterion that I shall call AgMod, as it boils down to Agentic modification by adverbials, as in (125).

(125) a. *John deliberately knew the answer* (State)
   b. *John deliberately pushed the cart* (Activity)
   c. *John deliberately painted a circle* (Accomplishment)
   d. *John deliberately found a penny* (Achievement)

This seems to work quite well, as in the case of adverbials like attentively, studiously, carefully, etc., but now consider (126)–(129):

(126) The sun had (*deliberately) evaporated four gallons
(127) The lighthouse (*deliberately) passed the house
(128) The mummy was (*deliberately) dried out by the drought
(129) The washer (*deliberately) ejected these dishes

Even though deliberately is incompatible with the sentences in (126)–(129), I think Vendler would have to put evaporate, pass, dry out and eject in the category of Accomplishments. Dowty (1979) would have no problem either in accepting these verbs as non-agentive Accomplishments. Again it seems as if one of the CTC, AgMod, has to do with voluntary agency rather than with continuous tense. This is exactly the reason why Mourelatos (1978) used the term 'Devolopments' in order to comprise both (agentive) Accomplishments and non-agentive cases.

The same objection applies to verbs like *stop* and *start* which are said by Vendler (but not by Dowty) to take only Activities and Accomplishments as shown in (130):

(130) a. ??She stopped/started knowing the answer
   b. She stopped/started running
   c. She stopped/started drawing a circle
   d. ??She stopped/started finding her sister

Again one could say that some sort of (voluntary) agency seems to be involved in (130b) and (130c) rather than a process taking time: it is rather odd to say

The mummy stopped drying out, even though *dry out* is not a State or an Achievement term. Consider also (131)–(134):

(131) Stop being a fool, being naughty, being a workalcoholic
(132) Stop being ill, being eight feet long, being loved
(133) He is being a fool, naughty, a work-alcoholic
(134) He is being ill, eight feet long, loved

where both (131) and (132) without the verb *stop* pertain to states of affairs or habits or dispositions. *Stop being ill* is somewhat strange given the current insights into the causes of illness: one does not have control over illness. The meaning of *love* seems to express that the one who loves as well as the one being loved have no agentive control: it seems to happen, just like recognizing some object.

Strictly speaking, *stop/start* cannot be a criterion, because there is no Progressive Form in the sentences of (130). This is no hair-splitting. If one does not allow the -ing-forms in (130a) and (130d), one should be able to explain why phrases like *Knowing that he was ill,* *Finding her sister,* are perfectly acceptable.

Summarizing, one can say that Vendler seems to be guided by at least one of the following principles, where CTC stands for ProcP, for do, for AgMod, and for *stop/start*:

(135) If a verb is positive with respect to CTC, then it belongs to the set of Activity verbs or Accomplishment verbs.
(136) If a verb belongs to the set of Activity or Accomplishment verbs, then it is positive with respect to CTC.

Of course, Vendler is only committed to (135), as the antecedent of (135) refers to linguistic criteria. But it would be nice for him if both (135) and (136) held. This is not the case, in two directions. Firstly, (135) does not hold, which becomes clear as soon as we take its contraposition: many State verbs and Achievement verbs allow for the Progressive Form, as shown by (109) and (99c). Even if a verb is negative with respect to CTC, it can be a (non-agentive) Accomplishment verb, as shown in, for example, (120).

Secondly, it has become clear that (136) does not hold either. This too can be shown by contraposition: there are verbs thrown out by CTC which are Activities or Accomplishment by any other account, because they take time, as shown by (120)–(124) and by (126)–(129).

Vendler’s criterion Progressive Form turns out to be actually focussed on some unclear concept of agentivity. Vendler seems to follow here the linguistic
The extended tenses are sometimes used to indicate, not duration of the event, but repetition. Thus we say, "Women are wearing longer skirts," but not, "Women are wearing long skirts." The present perfect tense is formed by adding "have" to the base of the verb, as in "I have seen John." The perfect progressive tense is formed by adding "have been" to the base of the verb, as in "I have been seeing John." The past perfect tense is formed by adding "had been" to the base of the verb, as in "I had been seeing John." The perfect past tense is formed by adding "have" to the base of the verb, as in "I have seen John."
When Paul read the letter, he was surprised.

Boating Paul left the surf net, our haphazard.

We went to the market and bought many things.

Am in market, saw the sausages bank.

not goes without this marker.

What was/is planned in that hotel?

Sa maka kula ihi loan iho, nedi?

This gun was made in England.

Kia ne fakalo ihe the English?

I like one (see Lesson 6), that may be used in passive constructions:

Did your brother die in that hospital?

O teina manu ma fate ihe the hospital nda?

They found the child near the river.

Sina heben ihe the river.

The addition of the passive marker that to the verb:

The passive form shows that the subject was the recipient of the action, as in the simple past tense, the subject may have either a present or a past

9.d. The Perfective Marker That

To sell (it)

but note the different word order in this sentence. He is in the car, not I am not going.

He na set la plan ne, I am not going.

In negative sentences, la follows set:

What will Marvin do?

Marvin set la faka sa ike?

He will buy food.

He na set sosna hahan.

The Passive tense is expressed by placing the marker set before the verb.

2. What did Marvin make?

3. Where does Marvin make?

The Passive tense:

3.e. Verbs and Tense

Mo'kele Tena

G. Hui
los cinco minutos salí de la aduana, cambié algunos dólares por pesos mexicanos, y me encaminé hacia el centro de Nuevo Laredo.

B. The preterite is often used to state a fact which, in the speaker’s mind, is a completed whole regardless of duration.

La civilización más avanzada del valle de México fue la de los toltecas. The most advanced civilization of the valley of Mexico was that of the Toltecs.

64. Combined Uses of the Preterite and the Imperfect

Modo de usar combinados el pretérito y el imperfecto

In narration there are usually two types of actions: those which recount the main events of the story and those which give background to what happens but have little to do with the actual forwarding action of the story. The main events are in the preterite, the background actions are in the imperfect.

In the following example the italicized verbs, which are in the imperfect, create a background for the main action. The verbs in boldface, which are in the preterite, narrate what happened and are main actions. Keep in mind that it is the speaker who determines which actions or states are background, which are forwarding narration.

En la Facultad de Medicina los estudiantes estaban y salían, los profesores explicaban sus materias, y en los laboratorios se estudiaban las ciencias biológicas. Por fin salió Carlos y saludó a su amigo Roberto que le esperaba fuera.
— ¿Quieres usted ver el interior de la facultad?
— ¿Cómo no!

Después de pasar por varios laboratorios interesantes, los amigos entraron en una aula — un aula donde se enseñaba anatomía. Detrás de la mesa del profesor había una lámina de anatomía y una pizarra, y delante de la mesa estaban los asientos de los estudiantes.
— Debe de ser muy interesante el estudio de la medicina — dijo Roberto.

B. The use of the imperfect and the preterite to express mental and physical states is of particular importance.

Mental States

<table>
<thead>
<tr>
<th>Imperfect</th>
<th>Preterite</th>
</tr>
</thead>
<tbody>
<tr>
<td>The imperfect describes a state of mind not specifically limited in time.</td>
<td>The preterite often indicates a change of state of mind.</td>
</tr>
</tbody>
</table>

65. Formation of the Future — Formación del futuro

In English the future is formed by the use of the auxiliary verbs shall and will and is conjugated: I shall speak, you will speak, he will speak, etc.

1 Current American usage conjugates the future: I will speak, you will speak, he will speak, etc., or I'll speak, you'll speak, he'll speak, etc.
7.3 Where only one item is mentioned in a comparison, a simple comparative or superlative expression like bijiao ‘comparatively’ or zuì ‘most’ is placed before the adjective:

Zhèi gè páizi shì mitáng bijiao piányi.
(lit. this my brand p honey comparatively cheap)
This brand of honey is (relatively) cheaper.

Nèi ge gōngyuán zuì méili.
(lit. that mw park most beautiful)
That park is the most beautiful [of all].

8 VERBS AND ASPECT MARKERS

8.1 Having discussed shì ‘to be’ and yǒu ‘to have’, we will now look at action verbs, state verbs and dative verbs.

8.2 Action verbs signify movement or action (e.g. dā ‘hit’; ‘strike’; ‘beat’; pāo ‘run’; hē ‘drink’). Apart from being used in imperatives (see 8.6), they are generally employed for narrative purposes. One of the most prominent features of action verbs in narration is that they are almost always used in conjunction with an aspect marker, le, guo or zài (suffixed to the verb), or zài (preceding the verb). However, action verbs may also occur without any marker, when they describe one of the following:

(1) Habitual action:

Háizìmen tiǎntiān kàn diànnǐng.
(lit. children day-day see television)
The children watch television every day.

Má chí cáo.
(lit. horse eat grass)
Horses eat grass.

(2) Permanent or long-term characteristics:

Wǒ yì jiǔ sān wǔ nián chūshì.
(lit. I one-nine-three-five year come-out-into-world)
I was born in 1935.

Wǒ xìn Jīdūjiāo.
(lit. I believe Christ-religion)
I am a Christian.

(3) Intended action:

Wǒ xiànzài qù bàngōngshì.
(lit. I now go office)
I am going to the office now.

Jùntiān wǒ qǐngkè.
(lit. today I invite-guest)
It’ll be on me today.

8.3 The aspect markers le, guo and zài:

8.3.1 Le indicates the ‘completion of an action’:

Wǒ xiě le sān fēng xìn.
(lit. I write.asp three mw letter)
I wrote three letters.

Wǒ xiě yǐ gē zāo.
(lit. I wash one mw bath)
I took a bath.

Wǒ māi le liǎng zhāng láiíwěi piào.
(lit. I buy two mw come-return ticket)
I bought two return tickets.

As in these three examples, the object of a verb with le is usually something specified or defined. If the object is a single unmodified noun, the sentence is generally felt to be incomplete:

*Wǒ chī le fān.
(lit. * I eat asp cooked-rice)

This problem is resolved if the object is specified or the sentence is extended:

Wǒ chī le liǎng wǎn fān.
(lit. I eat.asp two bowl rice)
I have eaten two bowls of rice.
Wó chīle fàn jiù huí jiā.
(lit. I eat asp rice-meal then return home)
I’ll go home as soon as I finish the meal.

Note: For a full discussion of composite sentences like this last extended sentence, see Chapter 10.

It must be stressed that aspect markers are NOT indicators of tense. Whereas in English the form of the verb changes to indicate tense, in Chinese time expressions specify the time of the action of the verb (compare Chapter 10).

Wó zuòtiān kàn xiǎoshū, jīntiān xiē xìn, míngtiān shōushí fángzì.
(lit. I yesterday read novel, today write letter, tomorrow tidy-up house)
Yesterday I read a novel, today I’m writing letters and tomorrow I will tidy the house.

A completed action with le may take place in the past or future.

Wó zuòtiān xiāle kě yīhòu qū kān diānyīng.
(lit. I yesterday finish asp lesson after-that go see film)
Yesterday when I’d finished class, I went to see a film.

Wó míngtiān xiāle kě yīhòu qù kān diānyīng.
(lit. I tomorrow finish asp lesson after-that go see film)
Tomorrow when I finish class, I’ll go and see a film.

To express the negative of completed action, i.e. to say what did not happen in the past or has not happened, méi(yōu) is used, WITHOUT le:

Tā méi(yōu) qù Óuzhōu.
(lit. s/he not(-have) go Europe)
S/he did not go to Europe.

Shéi méi(yōu) tīng zuòtiān de guāngbō?
(lit. who not(-have) listen yesterday p broadcast)
Who didn’t listen to yesterday’s broadcast?

Note: However, bù is used for a habitual action, whether in the past, present or future:

Tā yǐjīn bù chǎoyǎn.
(lit. s/he before not inhal-smoke)
S/he did not smoke before.

8.3.2 Guo denotes that an action is a ‘past experience’:

Wó kǎnguo Jìngjù.
(lit. I see asp Beijing-drama)
I have seen Peking opera. (I therefore know what it is.)

Wó hēguo Máotái (jiǔ).
(lit. I drink asp Maotai (wine/spirit))
I have tried Maotai. (I therefore know what it tastes like.)

To illustrate the difference between le and guo, consider the following:

Wōmen chīguo Bèijīng kāoyā.
(lit. we eat asp Beijing roast-duck)
We have tried Beijing duck before.

Néi tiān wōmen chīle Bèijīng kāoyā.
(lit. that day we eat asp Beijing roast-duck)
We had Beijing duck that day.

Tāmen jǐnlián qùguo Táiwān.
(lit. they this-year go asp Taiwan)
They went to Taiwan this year (but they are back now).

Tāmen jǐnlián qùle Táiwān.
(lit. they this-year go asp Taiwan)
They went to Taiwan this year (and they are still there).

The sentence Tāmen jǐnlián qùguo Táiwān shows that guo can be used to indicate experience within a defined period of time, jǐnlián ‘this year’ (as well as experience up to the present). The defined period can of course be any period including the immediate past. Hence the colloquial enquiry Nǐ chīguo fán méi(yōu) ‘Have you eaten’ is acceptable because the speaker has subconsciously in mind the immediate meal-time.

Méi(yōu) also functions as the negative in a past experience sentence, but in this construction guo is retained:

Tā méi(yōu) qúguo Fēizhōu.
(lit. he not go asp Africa)
He has never been to Africa.

Shéi méi(yōu) hēguo Máotái?
(lit. who not(-have) drink asp Maotai)
Who has not tried Maotai?

8.3.3 Zài, which is placed before the verb, indicates an ‘action in progress’:

Jiàoxiāng yuètuán zài yǔnzuò Bēidūnzhōng de yuèqǔ.
(lit. join-sound music-group asp p-in-the-process-of play Beethoven p music-song)
The symphony orchestra is playing Beethoven’s music.

Jiějie zài nián dàxué.
(lit. elder-sister asp p-in-the-process-of read university)
Elder sister is studying at the university.