

# chapter 5

## Sentence Semantics 1 Situations

### 5.1 Introduction

In chapter 3 we discussed aspects of word meaning. In this chapter we investigate some aspects of meaning that belong to the level of the sentence. One aspect is the marking of time, known as **tense**. How this is marked varies from language to language: it might be marked on a verb in languages like English or by special time words as in Chinese, as shown in 5.1a–c below:<sup>1</sup>

- 5.1 a. Tā xiànzài yǒu kè  
he now have classes  
“He now has classes.”
- b. Tā zuótiān yǒu kè  
he yesterday have classes  
“He had classes yesterday.”
- c. Tā míngtiān yǒu kè  
he tomorrow have classes  
“He will have classes tomorrow.”

(Tiee 1986: 90)

Here the verb *yǒu* “has/have” does not change form: the time reference is given by the time words, *xiànzài* “now,” *zuótiān* “yesterday,” and *míngtiān* “tomorrow.” We can compare this with the English translations where the verb *have* changes for tense to give the forms, *have*, *had*, and *will have*.

However it is marked, the location in time identified by tense belongs not to a single word but to the whole sentence. Take for example the English sentence 5.2 below:

5.2 Hannibal and his armies brought elephants across the Alps.

Though it is the verb *bring* which carries the morphological marker of tense, it seems sensible to say that the whole event described belongs in the past. In this chapter we will look at a number of semantic categories which, like tense, belong at the sentence level and which can be seen as ways that languages allow speakers to construct different views of situations. We begin by looking in section 5.2 at how languages allow speakers to classify situations by using semantic distinctions of **situation type**, **tense**, and **aspect**. Then in section 5.3 we look at how the system of **mood** allows speakers to adopt differing attitudes toward the factuality of their sentences; and how **evidentiality** systems allow them to identify the source of their belief. Each of these are sentence-level semantic systems which enable speakers to organize descriptions of situations.

## 5.2 Classifying Situations

### 5.2.1 Introduction

We can identify three important dimensions to the task of classifying a situation in order to talk about it. These dimensions are **situation type**, **tense**, and **aspect**. Situation type, as we shall see in section 5.2.2, is a label for the typology of situations encoded in the semantics of a language. For example, languages commonly allow speakers to describe a situation as static or unchanging for its duration. Such **states** are described in the following examples:

5.3 Robert loves pizza.

5.4 Mary knows the way to San Jose.

In describing states the speaker gives no information about the internal structure of the state: it just holds for a certain time, unspecified in the above examples. We can contrast this with viewing a situation as involving change, for example:

5.5 Robert grew very quickly.

5.6 Mary is driving to San Jose.

These sentences describe **dynamic** situations. They imply that the action has sub-parts: Robert passed through several sizes and Mary is driving through various places on the way to San Jose.

This distinction between static and dynamic situations is reflected in the choice of lexical items. In English, for example, adjectives are typically used for states and verbs for dynamic situations. Compare the states in the a examples below with the dynamic situations in the b sentences:

- 5.7 a. The pears are ripe.  
b. The pears ripened.

- 5.8 a. The theatre is full.  
b. The theatre filled up.

This is not an exact correlation however: as we saw above there are a number of **stative verbs** like *be, have, remain, know, love* that can be used to describe states, for example:

- 5.9 The file **is** in the computer.  
5.10 Ann **has** red hair.  
5.11 You **know** the answer.  
5.12 The amendment **remains** in force.  
5.13 Jenny **loves** to ski.

We will say that adjectives and stative verbs are inherently static, that is, it is part of their lexical semantics to portray a static situation type.

Some writers (for example Carlson 1977, Diesing 1992, Kratzer 1994) distinguish two types of state: stage-level predicates (SLPs), which are predicates that hold of temporal stages of an individual, and individual-level predicates (ILPs), which simply hold of individuals. The idea is that SLPs are tied to specific intervals of time while ILPS are atemporal. Such a distinction would distinguish between the states in *Mary is tired* and *Mary is intelligent*. This seems to have grammatical reflexes in some languages, for example the distinction between the Spanish verbs *ser* “be” and *estar* “be” as in 5.14 and 5.15 below: <sup>2</sup>

- 5.14 Pedro es inteligente  
“Pedro is intelligent.”  
5.15 Pedro está cansado esta mañana.  
Pedro is tired this morning  
“Pedro is tired this morning.”

We have already briefly mentioned the dimension of **tense**. As we will describe in section 5.2.3, many languages have grammatical forms, such as verb endings, which allow a speaker to locate a situation in time relative to the “now” of the act of speaking or writing. **Aspect** is also a grammatical system relating to time, but here the speaker may choose how to describe the internal temporal nature of a situation. If the situation is in the past, for example, does the speaker portray it as a closed

completed event, as in 5.16 below, or as an ongoing process, perhaps unfinished, as in 5.17?

5.16 David wrote a crime novel.

5.17 David was writing a crime novel.

This is a difference of aspect, usually marked, like tense, by grammatical devices. Tense and aspect are discussed in sections 5.2.3–6 and we discuss the problems of comparing the aspectual systems of different languages in 5.2.7. Finally section 5.2.8 is a brief look at how these dimensions combine to allow speakers to portray different situations.

## 5.2.2 Verbs and situation types

We saw in the last section that certain lexical categories, in particular verbs, inherently describe different situation types. Some describe states, others are dynamic and describe processes and events. In this section we describe elements of the meaning of verbs, which correlate to differences of situation type.

### *Stative verbs*

In the last section we saw examples of inherently stative verbs like *be*, *have*, *know*, and *love*. These verbs allow the speaker to view a situation as a steady state, with no internal phases or changes. Moreover the speaker does not overtly focus on the beginning or end of the state. Even if the speaker uses a stative in the past, for example:

5.18 Mary loved to drive sports cars.

no attention is directed to the end of the state. We do not know from 5.18 if or how the state ended: whether Mary's tastes changed, or she herself is no longer around. All we are told is that the relationship described between Mary and sports cars existed for a while. We can contrast this with a sentence like 5.19 below, containing a dynamic verb like *learn*:

5.19 Mary learned to drive sports cars.

Here the speaker is describing a process and focusing on the end point: at the beginning Mary didn't know how to drive sports cars, and at the end she has learned. The process has a conclusion.

Stative verbs display some grammatical differences from dynamic verbs. For example in English progressive forms can be used of dynamic situations like 5.20a below but not states like 5.20b:

- 5.20 a. I am learning Swahili.  
b. \*I am knowing Swahili.

As noted by Vlach (1981) this is because the progressive aspect, marked by *-ing* above, has connotations of dynamism and change which suits an activity like *learn* but is incompatible with a stative verb like *know*. We discuss the English progressive in sections 5.2.4 and 5.2.6 below.

Similarly it usually sounds odd to use the imperative with statives; we can compare the following:

- 5.21 a. Learn Swahili!  
b. ?Know Swahili!

Once again, we can speculate that imperatives imply action and dynamism, and are therefore incompatible with stative verbs.

It may be, however, that the distinction between state and dynamic situations is not always as clear-cut. Some verbs may be more strongly stative than others; *remain* for example, patterns like other stative verbs in not taking the progressive, as in 5.22 b below, but it does allow the imperative, as in 5.22c:

- 5.22 a. The answer remains the same: no!  
b. \*The answer is remaining the same: no!  
c. Remain at your posts!

It is important too to remember that verbs may have a range of meanings, some of which may be more stative than others. We can contrast the stative and non-stative uses of *have*, for example, by looking at how they interact with the progressive:<sup>3</sup>

- 5.23 a. I have a car.  
b. \*I am having a car.  
c. I am having second thoughts about this.
- 5.24 a. She has a sister in New York.  
b. \*She is having a sister in New York.  
c. She is having a baby.

### *Dynamic verbs*

**Dynamic** verbs can be classified into a number of types, based on the semantic distinctions **durative/punctual** and **telic/atelic**, which we will discuss below.

The first distinction is between **durative** and **punctual**: **durative** is applied to verbs that describe a situation or process which lasts for a period of time, while **punctual** describes an event that seems so instantaneous that it involves virtually no time. A typical comparison would be between the punctual 5.25 and the durative 5.26:

5.25 John coughed.

5.26 John slept.

What matters of course is not how much time an actual cough takes but that the typical cough is so short that conventionally speakers do not focus on the internal structure of the event.

In Slavic linguistics the equivalent of verbs like *cough* are called **semelfactive** verbs, after the Latin word *semel*, “once.” This term is adopted for general use by C. S. Smith (1991), Verkuyl (1993), and other writers. Other semelfactive verbs in English would include *flash*, *shoot*, *knock*, *sneeze* and *blink*. One interesting fact is that in English a clash between a semelfactive verb and a durative adverbial can trigger an **iterative** interpretation, that is where the event is assumed to be repeated for the period described, for example:

- 5.27 Fred coughed all night.  
 5.28 The drunk knocked for ten minutes.  
 5.29 The cursor flashed until the battery ran down.

In each of these examples the action is interpreted as being iterative: 5.27 is not understood to mean that Fred spent all night uttering a single drawn-out cough!

The second distinction is between **telic** and **atelic**. **Telic** refers to those processes that are seen as having a natural completion. Compare for example:

- 5.30 a. Harry was building a raft.  
 b. Harry was gazing at the sea.

If we interrupt these processes at any point then we can correctly say:

- 5.31 Harry gazed at the sea.

but we cannot necessarily say:

- 5.32 Harry built a raft.

Another way of looking at this distinction is to say that *gaze* being atelic can continue indefinitely, while *build* has an implied boundary when the process will be over. Alternative terms are **bounded** for telic and **unbounded** for atelic.

It is important to recognize that while verbs may be inherently telic or atelic, combining them with other elements in a sentence can result in a different aspect for the whole, as below:

- 5.33 a. Fred was running. (atelic)  
 b. Fred was running in the London Marathon. (telic)  
 5.34 a. Harry was singing songs. (atelic)  
 b. Harry was singing a song. (telic)

This telic/atelic distinction interacts with aspectual distinctions: for example a combination of either the English perfect or simple past with a telic verb will produce an implication of completion. Thus, as we have seen, both 5.35 and 5.36 entail 5.37:

- 5.35 Mary painted my portrait.

5.36 Mary has painted my portrait.

5.37 The portrait is finished.

However, the combination of a progressive aspect and a telic verb, as in 5.38 below does not produce this implication: 5.38 does not entail 5.36 above:

5.38 Mary was painting my portrait.

Comrie (1976) gives examples of derivational processes that can create telic verbs from atelic verbs, for example the German pairs in 5.39:

- 5.39 a. *essen* “eat,” *aufessen* “eat up”  
 b. *kämpfen* “fight,” *erkämpfen* “achieve by fighting”

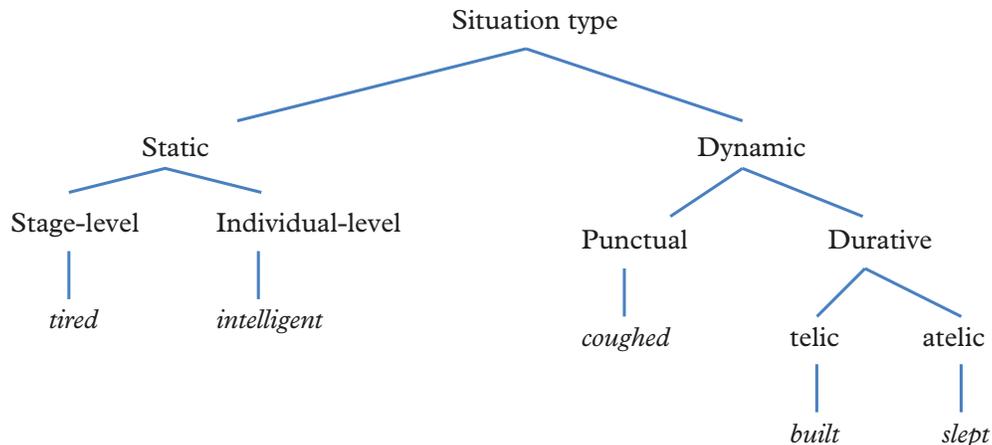
He contrasts the following sentences:

- 5.40 a. Die Partisanen haben für die Freiheit ihres Landes gekämpft.  
 b. Die Partisanen haben die Freiheit ihres Landes erkämpft.  
 “The partisans have fought for the freedom of their country.”  
 (Comrie 1976: 46–47)

where 5.40b implies that their fight was successful while 5.40a does not.

We can draw together some of the main semantic distinctions among situation types into the diagram below, where we include a single example of adjectives and verbs for each:

#### 5.41 Semantic distinctions among situation types



### 5.2.3 A system of situation types

Speakers use their knowledge of these semantic distinctions – stative/dynamic, durative/punctual, telic/atelic – to draw distinctions of situation type. We have seen that some verbs, like *paint*, *draw*, and *build*, are inherently telic while others like *talk*,

*sleep*, and *walk* are atelic. Similarly some verbs are inherently stative like *know*, *love*, and *resemble*, while others like *learn*, *die*, and *kill* are non-stative. We have also seen from examples like 5.33 and 5.34 above that while these distinctions are principally associated with verbs, combining a verb with other elements in a sentence, like object noun phrases and adverbials, can alter the situation type depicted.

The task for the semanticist is to show how the inherent semantic distinctions carried by verbs, and verb phrases, map into a system of situation types. One influential attempt to do this is Vendler (1967). Below are the four kinds of situations he identified, together with some English verbs and verb phrases exemplifying each type (Vendler 1967: 97–121):

- 5.42
- a. States  
*desire, want, love, hate, know, believe*
  - b. Activities (unbounded processes)  
*run, walk, swim, push a cart, drive a car*
  - c. Accomplishments (bounded processes)  
*run a mile, draw a circle, walk to school, paint a picture, grow up, deliver a sermon, recover from illness*
  - d. Achievements (point events)  
*recognize, find, stop, start, reach the top, win the race, spot someone*

Smith (1991), building on Vendler's system, adds the situation type **semelfactive**, distinguishing it from achievements as follows:

- 5.43 *Semelfactives* are instantaneous atelic events, for example [knock], [cough]. *Achievements* are instantaneous changes of states, with an outcome of a new state, for example [reach the top], [win a race]. (Smith 1991: 28)

She identifies three semantic categories or features: [stative], [telic], and [duration], with roughly the characteristics we have already described, and uses these to classify five situation types, as follows (1991: 30):

5.44	Situations	Static	Durative	Telic
	States	[+]	[+]	n.a.
	Activity	[-]	[+]	[-]
	Accomplishment	[-]	[+]	[+]
	Semelfactive	[-]	[-]	[-]
	Achievement	[-]	[-]	[+]

We can provide examples of each situation type, as follows:

- 5.45 She hated ice cream. (State)
- 5.46 Your cat watched those birds. (Activity)
- 5.47 Her boss learned Japanese. (Accomplishment)
- 5.48 The gate banged. (Semelfactive)
- 5.49 The cease-fire began at noon yesterday. (Achievement)

As we noted in the last section the situation type communicated by a clause results from the combination of the verb and other elements. So the addition of a locational prepositional phrase to the verb *cycle* in 5.50a below produces an activity while a directional prepositional phrase in 5.50b produces an accomplishment:

- 5.50    a. Frankie cycled in the park.  
           b. Frankie cycled to the park.

As noted by Verkuyl (1972) accomplishment verbs like *eat*, *write*, and *build* produce different situation types depending on their objects. With a count expression as in 5.51a below the result is an accomplishment, while with a mass noun or a bare plural as in 5.51b the result is an activity:

- 5.51    a. Alexander built a bridge.  
           b. Alexander built bridges.

A semantic account of situation type has to provide an account of such combinatorial effects, as discussed for example by Rothstein (2004).

It is important to remember that these situation types are interpretations of real situations. Some real situations may be conventionally associated with a situation type; for example it seems unlikely that the event described in 5.52 below would be viewed other than as an accomplishment:

- 5.52    Sean knitted this sweater.

Other situations are more open, though: 5.53 and 5.54 below might be used of the same real-world situation, but give two different interpretations of it: 5.53 as an activity and 5.54 as a state:

- 5.53    Sean was sleeping.

- 5.54    Sean was asleep.

#### 5.2.4 Tests for situation types

The semantic characteristics of the situation types we have described permit the use of certain tests or diagnostics to help decide which type a clause belongs to. In this section we outline some of the most commonly used tests. Each of these tests needs to be used with care. They are helpful in identifying typical uses but speakers can sometimes shift verbs and their clauses across situation types for special effects and thus counter examples can be found or imagined, as mentioned below. We begin with tests for statives, and for brevity we focus on English.

##### *Statives*

- The progressive verb form, discussed in section 5.6 below, can be used as a (negative) test for statives since, as shown in example 5.20 earlier, only non-statives occur in the progressive, so that the stative *\*I am knowing Swahili*

is ungrammatical. We noted though that some verbs like English *have* include both stative and non-stative senses so care is needed distinguishing these. Similarly the dynamism of the progressive, discussed below, is sometimes used to give dynamic senses to a stative verb, as in *I'm loving it*.

- Imperative verb forms also provide a negative test since, as shown in 5.21 earlier, only non-statives occur as imperatives, so that *?Know Swahili!* is odd.
- Simple present verb forms can be used as a test since they refer to the current time of speaking with statives but have a habitual reading with non-statives, as in the examples below:

- 5.55    a. Isabel knows Cannes.  
           b. Isabel visits Cannes.

Sentence b cannot be used to mean that Isabel is visiting Cannes now. Again special uses can provide counterexamples to this test as when the simple present is used in forms of narrative, such as jokes, *An elephant goes into a bar...*, or sports commentary, *He shoots and scores!*

- If a situation type can occur in the frame *What happened was...* it is non-stative, as shown below:

- 5.56    a. What happened was that Alice left the school.  
           b. *?What happened was that Alice was intelligent.*

Other tests have been proposed, for example that statives cannot occur as complements of the verb *finish* (Dowty 1979). However, while this is true, so that *?She finished knowing Swahili* is odd, some classes of dynamic verbs are also excluded, reducing the value of this test. Thus 5.57 below is odd with the dynamic verb *lose*:

- 5.57    *?Fred finished losing his car keys.*<sup>4</sup>

### *Duratives*

Dowty (1979) suggests using different types of temporal adverbial expressions as tests for activity, accomplishment, and achievement situation types. These tests work best using sentences with simple past tense forms. The temporal adverbial *in (a period)* only occurs with telic situation types and so distinguishes between the telic achievement in 5.58a below and the atelic activity in 5.58b:

- 5.58    a. They reached the school in half an hour. (Achievement)  
           b. *?They played cards in half an hour. (Activity)*

The durational time adverbial *for (a period)* does not occur with telic situation types, so distinguishes between the atelic activity in 5.59a and the telic achievement in 5.59b:

- 5.59    a. They played cards for half an hour. (Activity)  
           b. *?They reached the school for half an hour. (Achievement)*

The test with *finish* mentioned above for statives in fact picks out situation types that are durative and telic. Thus *finish* naturally occurs with accomplishments, as in 5.60a below, but not with activities (which are not telic) or achievements (which are not durative), as in 5.60b–c:

- 5.60    a. Joan finished fixing the car.                    (Accomplishment)  
           b. ?Joan finished fixing cars.                    (Activity)  
           c. ?Joan finished recognizing her old boss. (Achievement)

Finally, Dowty (1979) also proposed a test using the adverb *almost*. When an accomplishment is modified by *almost* as in 5.61 below it has two readings: one where the described event has occurred but not been completed and one where it has not occurred at all:

- 5.61    John almost wrote a novel.

In this example *almost* can refer to the whole process or just the end point. Activity and achievement types on the other hand, which do not have this combination of process and end point, only have the second reading, as in 5.62 below:

- 5.62    a. John almost played.                                (Activity)  
           b. John almost noticed the mistake. (Achievement)

Thus this test identifies accomplishments.

When using such tests it is important to recall the point made earlier: situation type is a characteristic of clauses rather than individual verbs. We can see this especially clearly when verbs shift types. One example, as discussed by Hay et al. (1999), is when verbs derived from gradable adjectives, called “degree achievements” by Dowty (1979), switch between activity and accomplishment with the two temporal adverbials we have been using as tests:

- 5.63    a. The soup cooled for ten minutes. (Activity)  
           b. The soup cooled in ten minutes. (Accomplishment)

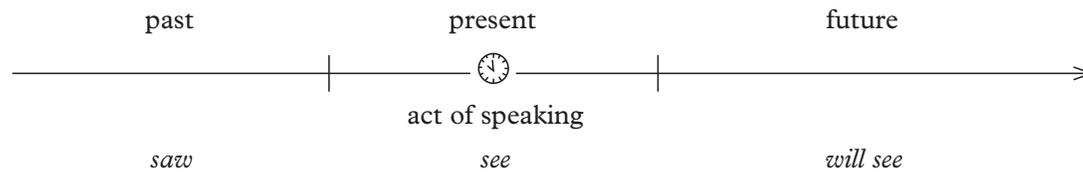
### 5.2.5 Tense

Tense and aspect systems both allow speakers to relate situations to time, but they offer different slants on time. Tense allows a speaker to locate a situation relative to some reference point in time, most likely the time of speaking. Sometimes in English this information is given by a temporal adverb; compare the following:

- 5.64    Yesterday they cut the grass.

- 5.65    Tomorrow they cut the grass.

Here, because the shape of the verb *cut* does not change, the temporal information is given by the adverbs *yesterday* and *tomorrow*. Usually in English, though, tense is

**Figure 5.1** Simple tenses

marked on the verb by endings and the use of special **auxiliary verbs**, as in the forms of *speak* below:

5.66 She spoke to me.

5.67 She will speak to me.

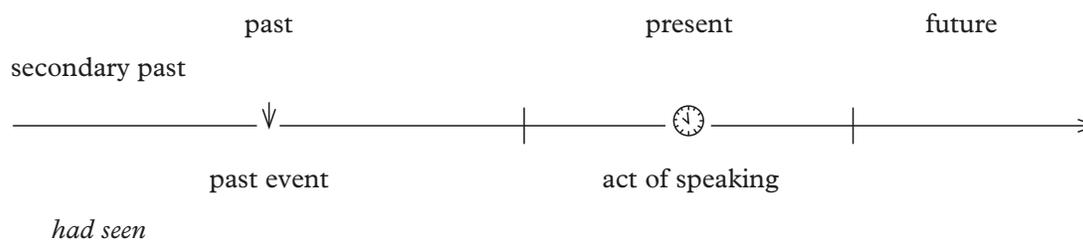
5.68 She is speaking to me.

Tense is said to be a **deictic** system, since the reference point for the system is usually the act of speaking. As we shall see in chapter 7, deictic systems are the ways in which a speaker relates references to space and time to the “here and now” of the utterance. Most grammatical tense systems allow the speaker to describe situations as prior to, concurrent with, or following the act of speaking. So in English, we have the three tenses: past, future, and present, as in 5.66–8 above. These are basic tenses and we could use a diagram like figure 5.1 to represent them, metaphorically representing time as line moving left to right, and using the clock symbol for the time of the act of speaking.

More complicated time references are possible. For example the speaker can locate an event in the past or future and use that event as the reference point for its own past, present and future. To do this in English complex tenses are used. If a speaker in 1945 said, for example:

5.69 By 1939 my father had seen several arrests.

the verb *had seen* is one of these complex tenses, called the **past perfect** or **pluperfect**. The year 1939 is in the past of the utterance of course, but the speaker has made it the anchoring point for its own past. The father’s acts of seeing are marked as being in this secondary past, as well as in the past relative to the act of speaking. Again we could represent this in a simple diagram as in figure 5.2.

**Figure 5.2** Complex past tense

Complex future tenses like *will have seen* allow a similar creation of a past-of-a-future-event, as in an utterance now of 5.70:

5.70 By 2050 we will have experienced at least two major earthquakes.

Here of course the earthquakes are portrayed as in the past relative to 2050, but in the future relative to the act of speaking.

Since tense is a deictic system it may vary from language to language. Some languages, like the Bantu language Chibemba (Sharman 1956, Givón 1972) have more complicated systems of divisions than English:

5.71 Chibemba past tense system (Givón 1972)

- a. Remote past:  
*Ba-àlí-bomb-ele* “They worked (before yesterday)”
- b. Removed past:  
*Ba-àlí-bomba* “They worked (yesterday)”
- c. Near past:  
*Ba-àcí-bomba* “They worked (earlier today)”
- d. Immediate past:  
*Ba-á-bomba* “They worked (in the past few hours)”

5.72 Chibemba future tense system

- a. Immediate future:  
*Ba-áláá-bomba* “They’ll work (in the next few hours)”
- b. Near future:  
*Ba-léé-bomba* “They’ll work (later today)”
- c. Removed future:  
*Ba-kà-bomba* “They’ll work (tomorrow)”
- d. Remote future:  
*Ba-ká-bomba* “They’ll work (after tomorrow)”

Here we see marked four degrees of remoteness from the act of speaking (Givón 2001): a few hours from now; within today; within the day adjacent to today; and beyond the day adjacent to today. Each of these projects backwards into the past and forwards into the future. Since this system includes not only intervals relative to the act of speaking but an implied measurement of the intervals, it is termed a **metrical tense** system by Chung and Timberlake (1985: 207).

An influential system of representing the deictic nature of tense is Reichenbach’s (1947) reference point theory of tense which, as shown in 5.73, identifies three reference points in time:

5.73 Reichenbach’s (1947: 290) tense reference points

- S = the speech point, the time of utterance;  
 R = the reference point, the viewpoint or psychological vantage point adopted by the speaker;  
 E = event point, the described action’s location in time.

Tenses are then defined by three ordering relations between these points: at the same time (=); before ( $\mathbf{x} < \mathbf{y}$ ); and after ( $\mathbf{x} > \mathbf{y}$ ). Crucial to the identification of tense are

the relations (i) between reference time and speech time, and (ii) between event and reference time. We can show this with the examples in (5.74–6):

5.74	“I saw Helen” ( $R=E<S$ )	
5.75	“I had seen Helen” ( $E<R<S$ )	
5.76	“I will see Helen” ( $S<R=E$ )	

In 5.74 the vantage point and the event are situated before the act of speaking, the speech time, which then corresponds to the simple past tense in the sentence “I saw Helen.” In 5.75, as in example 5.69 above, the reference time is in the past of the speech time, setting up a secondary past, corresponding to the past perfect form. In 5.76 the vantage point and event are in the future of the speech time, giving the simple future “I will see Helen.”

It is difficult to go much further than these brief remarks about tense without discussing aspect. This is because in many languages, including English, aspect and tense interact in subtle ways and are marked on verbs in similar ways, often sharing composite endings. We discuss aspect in the next section.

## 5.2.6 Aspect

Aspect systems allow speakers to relate situations and time, but instead of fixing situations in time relative to the act of speaking, like tense does, aspect allows speakers to view an event in various ways: as complete, or incomplete, as so short as to involve almost no time, as something stretched over a perceptible period, or as something repeated over a period. As Charles Hockett (1958: 237) describes it:

5.77 *Aspects* have to do, not with the location of an event in time, but with its temporal distribution or contour.

We can compare the sentences 5.78 and 5.79 below for example:

5.78 Ralph was building a fire escape last week.

5.79 Ralph built a fire escape last week.

Both sentences describe a situation in the past but they differ: 5.79 views the fire escape as completed, while 5.78 gives no information about whether the fire escape ever got finished. The difference arises, of course, because the verb forms are each at a different intersection of the tense and aspect systems of English: *was building*

is in a **past progressive** tense/aspect form in 5.78 and *built* is in a **simple past** tense/aspect form in 5.79.

We can look at this interdependence between aspect and tense by outlining some of the main forms in English. Discussion of each will necessarily be brief and readers are referred to Leech (1971), Binnick (1991), and Declerck (2006) for detailed descriptions.

### *English progressive forms*

5.80	Present progressive	<i>I am listening</i>
	Past progressive	<i>I was listening</i>
	Future progressive	<i>I will be listening</i>

The progressives describe action as ongoing and continuing. As mentioned earlier, progressives are used with dynamic situations rather than states and provide a way of describing processes as being extended through time without any implication of completion. In the past and future, progressives can be used to provide a background activity against which another event occurs, for example:

5.81 She was hiding the money when the doorbell rang.

5.82 She'll be washing the car when you arrive.

Aside from this central use there are a number of subsidiary uses of the progressive, for example for intentions or plans in the immediate future as in 5.83:

5.83 I'm catching the midnight train tonight.

This use is sometimes called the **proximate future**. Reference grammars of English like Jespersen (1931), Quirk et al. (1985), and Huddleston and Pullum (2002) provide comprehensive descriptions of these uses.

### *English perfect forms*

5.84	Present perfect	<i>I have listened</i>
	Past perfect	<i>I had listened</i>
	Future perfect	<i>I will have listened</i>

The perfect aspect allows a speaker to emphasize the relevance of events in the past to the "present." In the simplest case, the present perfect, this "present" is the time of speaking, what we could call the unmarked anchoring point. This relevance can be of different types: one is to give a "just now" sense of the immediate past, compare:

5.85 Don't run. The train has left.

5.86 ?Don't run. The train left.

Another interpretation of a sentence like 5.87

5.87 The train has left.

is that the speaker is focusing interest on the consequences now of the event described, that is that the train is no longer here. This sense of “relevance to now” is reflected by the fact that the perfect is often used with the adverb *already*, which means of course “by now, by then,” for example:

5.88 I’ve already eaten.

In fact in some dialects of English this adverb can do the same job as the perfect aspect, thus making it redundant and allowing sentences like:

5.89 I already ate.

With the past and future perfect the connection, or relevance, relies on a secondary location in time, an anchoring point in the past or future of the time of speaking. See for example the past perfect in 5.90:

5.90 The train had left.

Here the anchoring point is in the past relative to the act of speaking and the verb form links the time prior to the anchoring point with the anchoring point itself. Though the locations in time are different, the same interpretations are possible as with the present perfect: a sense of immediacy, that is, a “just then” sense; or an emphasis on consequences, at that point the train was no longer there:

5.91 He was too late. The train had left.

The future perfect allows the same interpretations with an anchoring point in the future:

5.92 The train will have left.

So the perfect aspect is a relative aspect: it allows a speaker to emphasize the relevance to an anchoring point of an event in its past. This anchoring point can be the time that the speaker is speaking, or a time she chooses in the past or future. The economy allowed by such verbal forms as we find in 5.92 is clear as soon as we try to paraphrase such meanings as “events in the past of a future time but in the future of now.”

### *English simple forms*

5.93	Simple present	<i>I listen</i>
	Simple past	<i>I listened</i>
	Simple future	<i>I will listen</i>

These forms are simple tense forms which can be seen as basically neutral with respect to aspect: depending on other elements in the sentence, and on context, they are compatible with a number of aspects. Take for example the simple past form in 5.94:

5.94 I watched the six o'clock news.

This is compatible with a couple of interpretations: referring to one occasion in the past or describing a habitual action. As we will see below, when a simple past like 5.94 refers to a single occasion it portrays the action as completed.

The simple present is more restricted than the past. For most verbs, the use of the simple present to describe present events has largely been supplanted by the use of the present progressive: in an exchange like 5.95:

5.95 a. What are you doing?  
b. I'm looking for my ticket.

the present progressive is used where many other languages would use a simple present, e.g. French:

5.96 a. Que'est-ce que tu fais?  
b. Je cherche mon billet.

However, the English simple present is used as an ordinary present tense with stative verbs, as in 5.97:

5.97 a. He knows the answer.  
b. \*He is knowing the answer.

With non-stative verbs the simple present has other uses: it is used for habitual action, as in 5.98; for general or universal statements, as in 5.99, and in some instances for the future, as in 5.100:

5.98 She reads *The Independent*.

5.99 Earthworms belong to the phylum Annelida.

5.100 The ship departs tomorrow at dawn.

These then are examples of some basic tense and aspect forms in English. We have concentrated on the intersection of three tenses and three aspects, but we haven't of course exhausted the system: as learners of English know, more complex forms like *they will have been listening* are possible. See Quirk et al. (1985) and Huddleston and Pullum (2002) for a more complete listing of the forms.

The Reichenbach system for tenses that we discussed earlier attempts to reflect the aspectual meanings of verb forms, especially the relevance effects, by linking the reference point, which is the viewpoint or psychological vantage point adopted by

the speaker, to the other points. We can expand earlier examples in 5.74–6 to the fuller selection in 5.101:

- 5.101 Reichenbach tenses for English:
- |    |                  |         |                          |
|----|------------------|---------|--------------------------|
| a. | Simple past      | (R=E<S) | “I saw Helen”            |
| b. | Present perfect  | (E<S=R) | “I have seen Helen”      |
| c. | Past perfect     | (E<R<S) | “I had seen Helen”       |
| d. | Simple present   | (S=R=E) | “I see Helen”            |
| e. | Simple future    | (S<R=E) | “I will see Helen”       |
| f. | Proximate future | (S=R<E) | “I’m going to see Helen” |
| g. | Future perfect   | (S=E<R) | “I will have seen Helen” |

In this system, the present perfect in 5.101b and the proximate future in 5.101f have their meaning of “relevance to the present” reflected by linking the reference point and the speech point, that is S=R.

However, as foreign language learners also know, it is one thing to learn the verbal tense and aspect forms of a language and quite another to learn to use them correctly. One example of difficulty is that there are often restrictions on sequences of tense and aspect within complex sentences: for example, while the a sentence sequences below are possible, the b versions with a complex sentence sound very strange:

- 5.102 a. Joan walked out. She has left her bag.  
b. ?Joan walked out and has left her bag.
- 5.103 a. You will get your results next Thursday. Come over for a drink.  
b. ?When you will get your results next Thursday, come over for a drink.

See Comrie (1985: 102–21) and Binnick (1991: 339ff) for discussion of sequencing constraints on tense and aspect forms.<sup>5</sup>

Speakers may also employ unusual tenses and aspects in narratives to add freshness to the telling. For example, in many languages, including English, speakers and writers may narrate past events in the present tense, sometimes known as the **historical present**, to give immediacy to a description. See for example the following extract from John le Carré’s novel *The Night Manager*:

- 5.104 Jonathan is in the bedroom of the little flat in Luxor, with the moonlight sloping between the half-closed curtains. Sophie is lying on the bed in her white nightgown, eyes closed and face upward. Some of her drollness has returned. She has drunk a little vodka. So has he. The bottle stands between them. (1993: 122)

Within the novel this scene is a flashback, situated in time before the main action of the novel, which itself is often described in the past tense. Since the description is in the present, the whole tense/aspect system is shifted, with the present perfect replacing the expected past perfect in, for example, “She has drunk a little vodka.” See Schiffrin (1981) for a discussion of such effects.

## 5.2.7 Comparing aspect across languages

Although aspect is a sentential feature, we expect, especially in Indo-European languages, that it will be marked on verbs. Many languages, most famously Slavic languages, have inflectional affixes that give aspectual information, for example Russian:

5.105 On čital pis'mo. (imperfective)  
 he read.PAST.IMPERF a letter  
 "He was reading a letter."

5.106 On pročital pis'mo. (perfective)  
 he read.PAST.PERF a letter  
 "He read a letter."<sup>6</sup>

This **perfective/imperfective** distinction of aspect is very widespread among the languages of the world: Dahl (1985) and Bybee (1985) identify it as the most commonly found and in many senses the most basic distinction. Some writers view the difference as being one of viewpoint: Comrie (1976) describes perfectivity as viewing a situation externally, from outside, with no reference to its internal temporal structure, while imperfectivity allows the viewing of a situation from within, making explicit reference to the internal temporal structure. C. S. Smith (1991) proposes a similar definition: perfectivity includes the viewing of the beginning and end of a situation, while imperfectivity focuses on the middle phase, leaving especially the end unspecified. She supports this with examples from Russian, where the oddity of 5.108 below comes from taking a situation described in 5.107 in the perfective, and therefore ended, and trying to extend it into the present (1991: 302):

5.107 On napisal pis'mo.  
 He wrote.PERF a letter  
 "He wrote<sup>perf</sup> a letter."

5.108 ?On napisal pis'mo i ešče pišet ego.  
 he wrote.PERF a letter and still writes.IMPERF it  
 "He wrote<sup>perf</sup> the letter and is still writing<sup>imperf</sup> it."

However, with a situation described in the imperfective, like 5.109 below, the end point is unspecified and is thus compatible with an extension into the present as in 5.110 (Smith 1991: 304):

5.109 My pisali pis'mo.  
 we wrote.IMPERF a letter  
 "We were writing<sup>imperf</sup> a letter."

5.110 My pisali pis'mo i ešče pišem ego.  
 we wrote.IMPERF a letter and still write.IMPERF it  
 "We were writing<sup>imperf</sup> a letter and are still writing<sup>imperf</sup> it."

These definitions allow us to correlate the imperfective/perfective system with the distinction we saw earlier in English between the simple past and the past progressive. Returning to an earlier example:

5.111 John was building a fire escape.

5.112 John built a fire escape.

we can identify the simple past verb form *built* in 5.112 as an English representative of the perfective aspect, with *was building* in 5.111 representing the imperfective. As we have seen, the perfective focuses on the end points of a situation while the imperfective does not, producing a distinction between complete and incomplete action. This helps explain why we can interleave another event into the progressive of example 5.111 but not the simple past of 5.112, as 5.113 and 5.114 below show:

5.113 John was building a fire escape last week, when Rosemary came to stay.

5.114 John built a fire escape last week, when Rosemary came to stay.

In 5.113 Rosemary interrupts the building process, while in 5.114 Rosemary's arrival can only be placed outside the closed event, that is before or after the building of the fire escape, perhaps most naturally the latter. Though the added clause is the same in both sentences, we understand different sequences of events: indeed the sequence understood in 5.114 can lead to the implication that Rosemary's arrival was the cause of Ralph building the fire escape.

We can parallel Smith's examples from Russian with similar examples from English: 5.115 below is odd because the second clause contradicts the perfective nature of the first clause, while 5.116 is fine:

5.115 ?I baked a cake and I'm still baking it.

5.116 I was baking a cake, and I am still baking it.

What this brief comparison of English and Russian disguises is that while we can compare the aspectual systems of different languages, it is very difficult to characterize a typical aspectual system. Firstly, of course, the means of marking aspects differ: Russian, as we saw, uses prefixes on the verb, while English tends to use combinations of verbal endings and auxiliary verbs like *be*, *have*, *use to*, for example:

- 5.117
- a. He read *The Irish Times*.
  - b. He has read *The Irish Times*.
  - c. He used to read *The Irish Times*.
  - d. He was reading *The Irish Times*.

A second and more serious problem in trying to come up with universal aspectual distinctions is that the aspectual systems of different languages tend not to

correspond very closely. As we noted, it has been claimed that the aspectual distinction between perfective and imperfective aspects is very widespread: forty-five of the sixty-four languages in Dahl's (1985) worldwide sample possess an aspectual distinction of this type. However, there are numerous differences between uses of these two aspects among these languages. For example, the perfective in Arabic is only used with reference to the past, for example:

- 5.118 Harbat                      al-bint      min      al-madrasa.  
 run away.3f.sg.PERF    the-girl    from    the-school  
 "The girl ran/has run away from the school."

In Russian, on the other hand, a perfective can occur with past and non-past tenses: a perfective non-past is understood to refer to the future, for example:

- 5.119 Ja    napišu                      pis'mo.  
 I    write.PERF.NON-PAST    a letter  
 "I'll write a letter."

(Dahl 1985: 80)

The examples we have seen of tense and aspect have been marked grammatically, for example by verbal affixes and auxiliary verbs. As mentioned earlier, a speaker's characterization of a situation derives from combining a choice from the situation types encoded in the verbal semantics with forms from the grammatical systems of tense and aspect. We end discussion of aspect by looking briefly at the interaction of situation types and aspect in the next section.

### 5.2.8 Combining situation type and aspect

We saw in section 5.2.2 that situation type and aspect interact: for example, certain verb forms such as progressives are used with some situation types but not with others. In fact the options for describing situations in any language are constrained by natural combinations of situation type, aspect and tense. Inherent features of a verb's meaning fit in with the meaning of certain tense and aspect forms, but not with others. Speakers know the valid combinations and the semanticist's task is to reflect this knowledge. The difficulty is that the combinations are very language specific. For example, in the last section we saw that the English progressive aspect has features of the cross-linguistic aspect imperfective. However, it also has connotations of activity, dynamism, and volition. C. S. Smith (1991: 224) gives examples of contrasts between simple and progressive forms which show this:

- 5.120    a. She blinked her eyes.  
           b. She was blinking her eyes.
- 5.121    a. The ship moved.  
           b. The ship was moving.

The observation is that the b sentences have a vividness missing from the a sentences. Additionally, 5.120b has connotations of willful behavior missing from 5.120a; and in 5.121b the description of motion is more vivid than in 5.121a because of the progressive's focus on internal successive phases. As we saw earlier, these connotations of dynamism mean that the progressive does not combine with stative situation types in English:

- 5.122 a. \*He was understanding the problem.  
b. He understood the problem.

- 5.123 a. \*She was having long legs.  
b. She had long legs.

However in French the **imparfait** aspect, which might be seen as a corresponding imperfective,<sup>7</sup> does not have these connotations of dynamism and therefore does occur with statives, as below (Rand 1993: 39):

- 5.124 L'air        sentait                    le        jasmin.  
the-air    smell.IMP-PAST    the        jasmine  
"The air smelled of jasmine."

- 5.125 Je    vous    entendais                    bien.  
I    you    hear.IMP-PAST    well  
"I heard you well."

Part of the semantic description of particular languages then is to reflect which aspectual viewpoints are available on a particular situation type. Thus for English we need to recognize that a speaker can choose to view an accomplishment from a perfective viewpoint as in 5.126a below or from an imperfective viewpoint as in 5.126b:

- 5.126 a. Rory painted a seascape.  
b. Rory was painting a seascape.

Thus the interaction between situation type and aspect is a complex area of semantics, but what seems clear is that in describing a speaker's aspectual choices we must distinguish between three dimensions: real situations, the situation types lexically coded in languages, and ways of viewing these situations types in terms of their internal structure (the choice of whether or not to focus on their beginning, middle, and end phases). There are some differences in the terminology applied across these three dimensions. Some writers use **aspect** for both the second and third dimensions, which we have termed situation type and aspect. Others use opposing terms for these two dimensions: **situation type** vs. **viewpoint aspect**, **lexical aspect** vs. **grammatical aspect**, and **inner aspect** vs. **outer aspect**. Still others reserve **aspect** for viewpoint and borrow foreign language terms like *modes d'action* or *Aktionsarten* for the situation types, or the real situations, or both. Binnick (1991) picks a very detailed path through the terminology.

## 5.3 Modality and Evidentiality

### 5.3.1 Modality

Another important semantic category which operates at the sentence level is **modality**. Modality is a cover term for devices which allow speakers to express varying degrees of commitment to, or belief in, a proposition. Let us take a simple assertion like 5.127:

5.127 Niamh has gone to the airport.

It seems that when being told 5.127, we assume a certain commitment on the behalf of the speaker to its truth. The speaker may be wrong of course, or be lying in order to mislead us. Our conversational practice, however, seems to be built upon an assumption that speakers generally try to tell the truth, as they know it. If we discover that Niamh hasn't gone to the airport then our reactions will be very different depending on whether we think the speaker was simply wrong in her belief, or intentionally misleading us. We discuss this assumption of truthfulness as part of the more general issue of conversational conventions in chapter 7. We might take the opposite of the assertion 5.127 to be the denial 5.128:

5.128 Niamh hasn't gone to the airport.

However, without any further spoken qualification, both 5.127 and its negation 5.128 seem to carry an unspoken guarantee of "to the best of my knowledge."

Modal systems allow speakers to modulate this guarantee: to signal stronger and weaker commitment to the factuality of statements. There are a number of possible linguistic strategies: for example, the sentence can be embedded under a higher clause with an adjective or adverb of modality, as in (where S represents our sentence):

- 5.129
- a. It is certain that S
  - b. It is probable that S
  - c. It is likely that S
  - d. It is possible that S

Here versions 129a–d move from strong to weak commitment to S. Another strategy is to put into the higher clause a verb which describes the extent of the speaker's belief – what is often called in the philosophical literature her **propositional** attitude:

- 5.130
- a. I know that S
  - b. I believe that S
  - c. I think that S
  - d. I don't know that S
  - e. I doubt that S
  - f. I know that not S

In 5.130 we have a gradient from the certainty of the truth of the proposition expressed by S through to the certainty of its falsity.

A third strategy we find in English is to employ auxiliary verbs: in 5.132 below these mark the variations of commitment toward the assertion in 5.131:

- 5.131 She has left by now.
- 5.132
- a. She must have left by now.
  - b. She might have left by now.
  - c. She could have left by now.
  - d. She needn't have left by now.
  - e. She couldn't have left by now.

Auxiliary verbs in this role are called **modal verbs**.

These modal verbs have other functions. The examples so far have been of **epistemic modality**, so called because the speaker is signaling degrees of knowledge. A second major use is to signal **deontic modality**, where the verbs mark the speaker's attitude to social factors of obligation, responsibility and permission. Take for example 5.133 below:

- 5.133 You can drive this car.

A speaker can use this to mean either of the following:

- 5.134 It is possible for you to drive this car.
- 5.135 You have my permission to drive this car.

The first is another example of epistemic modality; the second is an example of deontic modality. Deontic modals communicate two types of social information: **obligation** as in 5.136 and **permission** as in 5.137:

- 5.136
- a. You must take these books back.
  - b. You should take these books back.
  - c. You need to take these books back.
  - d. You ought to take these books back.
- 5.137
- a. You can leave them there.
  - b. You could leave them there.
  - c. You might leave them there.

Deontic modals, like epistemic modals, signal a speaker's judgments, but while with epistemics the judgment is about the way the real world is, with deontics it is about how people should behave in the world. This means that the use of deontics is tied in with all sorts of social knowledge: the speaker's belief systems about morality and legality; and her estimations of power and authority. The sentences in 5.136 and in 5.137 step down in modal strength. Thus 5.136a is a stronger statement of obligation than 5.136d, and while 5.137a for example is a

bald granting of permission, 5.137c is a weaker and politer version. We can imagine that deciding which of 5.137a–c to use would depend on different judgments by the speaker of her authority over the listener and the degree of formality of their relationship.

Sometimes the relationship between epistemic and deontic modality is more complicated than an ambiguity resolvable in context, like 5.133 earlier. Speakers can use an epistemic modal to imply a deontic interpretation as in 5.138:

5.138 You could have told me you were coming.

Here the possibility of telling is used to imply a missed obligation, turning 5.138 into a reproof.

Other types of non-epistemic modality have been identified including **abilitive**, **teleological**, and **bouletic** modality. These are expressed by the same forms, for example modal verbs in English, italicized in the examples below. Abilitive modality reflects possibility based on the speaker's view of a subject's abilities, as in 5.139 below:

- 5.139 a. Alexander *can* play cricket.  
b. This bridge *can* support the trucks' weight.

Teleological modality expresses strengths of possibility and necessity relative to the speaker's view of a subject's goals, as in 5.140:

5.140 [Context: In order to get the job...] He *can/has to* improve his Irish.

Bouletic modality reflects possibility and necessity relative to the speaker's view of a subject's desires, for example:

5.141 [Context: Since Isabel wants to go on a world cruise...] She *can/should* start saving now.

Some scholars identify a third category distinct from epistemic and deontic modality. Palmer (2003), for example, assigns examples like 5.139 to a category called **dynamic modals**. Deontic and dynamic modals share the characteristic of being concerned with actions and behavior but Palmer suggests the difference is one of control. In deontic modals the event is controlled by people or circumstances other than the subject of the sentence, as in the deontic reading of example 5.133 above. In dynamic modals the control belongs to the subject, as in example 5.139 where the possibilities derive from the subjects' own abilities. Other scholars suggest different classifications: Coates (1983) for example places such examples into a group with deontic modality called **root** modality as distinct from epistemic modality. The term "root" is rather opaque but is used by Leech (2004) for example to reflect the assumption that non-epistemic modality is more basic and common.

We have seen that epistemic and deontic modality can be marked by the same means, for example modal verbs, and indeed that some sentences are ambiguous in form between an epistemic and deontic reading. This has led semanticists to

ask what they have in common, and to speculate whether one type of modality has developed out of the other. One suggestion is that modality in general allows us to compare the real world with hypothetical versions of it. This approach derives from work on **possible world semantics** by David Lewis (1973, 1986) and others;<sup>8</sup> some of its grammatical implications are discussed by Chung and Timberlake (1985) and Palmer (1986). In this view, epistemic modals allow us to set up hypothetical situations and express different strengths of prediction of their match with the real world. Thus if a speaker says:

5.142 It might be raining in Belfast.

she is setting up a hypothetical situation (rain in Belfast) and predicting a reasonable match with reality. If on the other hand she says:

5.143 It must be raining in Belfast.

she is proposing a very strong match between her prediction and reality.

This approach views deontic modality in the same way. Here though the speaker is proposing a match between an ideal moral or legal situation and the real world of behavior. So if a speaker says:

5.144 You should pay for that doughnut.

she is proposing a match between the ideal situation and the real situation; a match more strongly proposed in 5.145:

5.145 You must pay for that doughnut.

This approach would relate modality to **conditional sentences** like 5.146 and 5.147 below, which also set up hypothetical situations:

5.146 If I were rich, I would be living somewhere hotter.

5.147 You would sleep all day, if we let you.

We can call the *if*-clause in sentences like 5.146–7, the **condition**, and the other clause, the **consequent**. This view of conditionals as part of the modal system neatly explains why we also find modal verbs used in consequent clauses, like *would* in 5.146–7 above, or *should* in the condition clauses below:

5.148 If you should go to Paris, stay near the river.

5.149 Should you meet Christy, there's something I would like you to ask him.

This approach to modality is also supported by the existence of languages that have verb forms which regularly distinguish between events in the real world and events in future or imaginary worlds. This two-term modal distinction is often called a **realis/irrealis modality** (i.e. a reality/unreality distinction): for example, Palmer

(1986: 47) describes a distinction between realis and irrealis moods in the Australian language Ngiyambaa:

- 5.150 a. yuruŋ-gu    ŋidja-a.<sup>9</sup>  
           rain-ERG    rain-PRES  
           ‘‘It is raining.’’ (realis)
- b. yuruŋ-gu    ŋidja-l-aga.  
           rain-ERG    rain-CM-IRREALIS  
           ‘‘It might/will rain.’’ (irrealis)

In this section we have looked briefly at the semantic system of modality; in the next we look at how modality distinctions are encoded in the grammar, in particular, at mood.

### 5.3.2 Mood

Thus far we have seen modality distinctions in English being marked by various means including adverbs and modal verbs. When such distinctions are marked by verb endings that form distinct conjugations, there is a grammatical tradition of calling these moods. Thus the distinction in the Ngiyambaa verb in 5.151 would be described as a distinction between a realis mood and an irrealis mood. In the verbal inflection of the Cushitic language Somali we find, in addition to the basic indicative mood in 5.151, a conditional mood, as in 5.152, and a potential mood as in 5.153:

- 5.151 Wuu    sameeyey.  
       he    make.PAST  
       ‘‘He made it.’’
- 5.152 Wuu    sameyn                    lahaa.  
       he    make.INFINITIVE    have  
       ‘‘He would make it, he would have made it.’’
- 5.153 Show    sameyee.  
       possibly    make.POTENTIAL  
       ‘‘Maybe he’ll make it, it’s possible he will make it.’’

The indicative in 5.151, which is a *realis* form, and the potential in 5.153 are marked by specific verb endings, while the conditional in 5.152 uses an the infinitive with an auxiliary verb ‘‘have,’’ rather like English.<sup>10</sup>

A more familiar example of mood is the **subjunctive** mood found in many European languages. The label subjunctive is applied somewhat differently in different languages, but we can identify two opposite poles of use, with an area of mixing and overlap between them. One pole is the grammatical one of syntactic subordination, that is, subjunctive verb forms show that a verb is in a subordinate clause. The other pole is semantic, where the subjunctive marks language-specific types of irrealis mood, and is thus used for wishes, beliefs, exhortations, commands and so

on. At the syntactic pole, we can cite the example of Somali again where subordinate clause verbs are always differentiated from their main clause equivalents by a combination of tone and endings; compare 5.154 and 5.155 below:

5.154 Lacágta way kéenaysaa.<sup>11</sup>  
 lacág-ta waa-ay kéenaysaa  
 'money-the CLASS-she bring.PROGRESSIVE  
 "She is bringing the money."

5.155 ínay lacágta kéenaysó  
 ín-ay lacág-ta kéenaysó  
 that-she money-the bring.SUBJUNCTIVE  
 "that she is bringing the money"

In 5.154 the classifier *waa* identifies a main clause, while in 5.155 the complementizer *in* "that" identifies a subordinate clause. As is clear, the main clause and subordinate clause forms of the verb *keen* "bring" have different tonal shapes and a different endings.<sup>12</sup>

If such subordinate verb forms are termed "subjunctive," then this use of the term does not seem to have anything to do with the semantic system of modality. However, in classical Greek and in Latin, the subjunctive describes a verbal form that occurs in both main and subordinate clauses, though with somewhat different applications in each. Palmer (1986: 39–43), citing R. T. Lakoff (1968), gives six meanings of the subjunctive in Latin main clauses: imperative, optative (for wishes), jussive, concessive, potential and deliberative. Each of these can be identified with descriptions of unreal situations, and thus be examples of our semantic pole of unreality. They contrast with the **indicative** mood used for descriptions of factual, or real, situations.

In-between positions are very common, especially in modern European languages. In many languages, the subjunctive is most commonly found in subordinate clauses, but often with some special meaning: following verbs of wishing and preference, as in the Spanish example 5.156 below (Butt and Benjamin 1994: 246) and the French 5.157; for the future in Spanish 5.158 (Butt and Benjamin 1994: 241); or indirect speech as in German 5.159 (Hammer 1991: 310):

5.156 Quiero que estudies más.  
 want.INDIC.PRES.1sg that study.SUBJUN.PRES.2sg more  
 "I want you to study more."

5.157 Il vaut mieux qu'elle le sache.  
 it worth better that+she it know.SUBJUN.PRES.3sg  
 "It's better that she know it."

5.158 Iremos allí cuando haga buen  
 go.INDIC.FUT.1p there when have.SUBJUN.PRES.3sg good  
 tiempo  
 weather  
 "We'll go there when the weather's good."

- 5.159 Sie sagte sie schreibe den Brief.  
 she said she write.SUBJUN.IMPERF.3sg the letter  
 “She said she was writing the letter.”

While there seems to be some shared element of modality in these uses, that is of non-factuality,<sup>13</sup> the range of use of subjunctives is usually both complex and language-specific. Often the choice between indicative and subjunctive moods allows speakers to make subtle semantic distinctions, as for example between the different degrees of possibility marked by the French indicative and subjunctive in 5.160 and 5.161 below (Judge and Healey 1985: 141):

- 5.160 Je pense qu’il viendra.  
 I think.INDIC.PRES that-he come.INDIC.FUT  
 “I think that he’ll come.”
- 5.161 Je doute qu’il vienne.  
 I doubt.INDIC.PRES that-he come.SUBJUN.PRES  
 “I doubt that he’ll come.”

Before we close this section on mood, we should point out that there is another quite distinct use of the term in semantics. This applies to changes in verbal morphology associated with the different social functions or **speech acts** that a speaker may intend. For example a speaker may intend a sentence as a statement, a question, a command or a wish. Depending on the language, these different functions may be marked by different word orders or special intonation tunes. Some languages mark this information by particular verb forms: for example, some languages have special **optative** verb conjugations to express wishes like the English phrases “may he get well,” “I hope he gets well,” “if only he would get well,” for example. See for example the Nahuatl sentence (Bybee 1985: 171):

- 5.162 mā choca. “If only he would weep.”

Such special speech act verbal forms are often called moods: the example above would therefore be in the optative mood, and in some languages this would contrast with an imperative mood (for commands), an interrogative mood (for questions) or a declarative mood (for statements). We will discuss this grammaticalization of speech functions in chapter 8 on speech acts. See Foley and Van Valin (1984) for discussion of the relationship between this use of mood and the epistemic and deontic modality we have been concerned with here.

### 5.3.3 Evidentiality

Under epistemic modality we looked at ways in which a speaker can mark different attitudes toward the factuality of a proposition. There is a further semantic category **evidentiality** which allows a speaker to communicate her attitude to the source of

her information. This is possible in English of course by the use of a separate clause or by parenthetical adverbials. Compare the bare assertion in 5.163 with the various evidentially qualified versions in 5.164a–g:

- 5.163 She was rich.
- 5.164
- a. I saw that she was rich.
  - b. I read that she was rich.
  - c. She was rich, so they say.
  - d. I'm told she was rich.
  - e. Apparently she was rich.
  - f. She was rich, it seems.
  - g. Allegedly, she was rich.

These qualifications allow the speaker to say whether the statement relies on personal first-hand knowledge, or was acquired from another source; and if the latter, perhaps to say something of the source.

Some languages routinely mark such information grammatically, by special particles or specific verb forms, so that in these languages evidentiality is coded in the morphology. A collection of descriptions of such languages is Chafe and Nichols (1986), which contains articles both on the North and South American languages where such systems were first described and also on evidential systems in European and Asian languages. Aikhenvald (2004) provides a comparative overview of such evidential systems. We can take as an example Tariana, an Arawak language spoken in northern Amazonia, whose verbal morphology distinguishes several different sources for information (Aikhenvald 2004: 2–3):

- 5.165
- a. Juse irida di-manika-**ka**  
José football 3sgnf-play-REC.P.VIS  
“José has played football (we saw it)”
  - b. Juse irida di-manika-**mahka**  
José football 3sgnf-play-REC.P.NONVIS  
“José has played football (we heard it)”
  - c. Juse irida di-manika-**nihka**  
José football 3sgnf-play-REC.P.INFR  
“José has played football (we infer it from visual evidence)”
  - d. Juse irida di-manika-**sika**  
José football 3sgnf-play-REC.P.ASSUM  
“José has played football (we assume this on the basis of what we already know)”
  - e. Juse irida di-manika-**pidaka**  
José football 3sgnf-play-REC.P.REP  
“José has played football (we were told)”

We follow Aikhenvald in marking the evidential morphemes in bold, giving us the five-fold evidential distinction between these reports of a recent past event. In a the speaker has seen the event; in b the speaker heard the noise of the football game; in

c the report is an inference from visual evidence;<sup>14</sup> in d the assumption is based on previous knowledge about José's habits; and finally in e, the speaker has learned the information from someone else.

What emerges from these studies of evidential systems are differences among languages in whether the evidential markers are obligatory in ordinary speech or an optional resource for speakers. Hardman, for example, reports that among the Jaqi languages of Peru, Bolivia, and Chile the identification of what she calls "data source" (i.e. the use of evidentials) is a central part of knowing how to communicate (1986: 114):

5.166 Accuracy on the part of the speaker is a crucial element in the public reputation of individuals; misuse of data-source is somehow somewhat less than human, or is insulting to the listener.

Speakers of Jaqi languages, which include Jaqaru, Aymara, and Kakwi, have obligatorily to signal whether the source of information for their statements is personal experience, or knowledge gained from other individuals by language, or comes from the remote past where no witnesses are available, that is from myths, history, and religion. In other languages the use of evidentials is more voluntary, providing a speaker with creative resources to structure a point of view in a discourse, or perhaps to argue more convincingly. See Chafe (1986) for a description of evidentials in English.

## 5.4 Summary

In this chapter we looked at aspects of sentence meaning that allow the speaker to classify situations. The category of **situation type**, for example, incorporating semantic distinctions like **static/dynamic**, **durative/punctual**, and **telic/atelic**, allows a basic classification of situations into **states**, **activities**, **accomplishments**, and so on. The categories of **tense** and **aspect** interact with situation type to allow a speaker to relate a situation to time in two ways: to locate it relative to the act of speaking, and to portray its internal temporal shape. We saw something of how these choices are reflected in grammar. We also saw that the distinctions available to speakers may be very subtle and language specific.

We also looked at the semantic categories of **modality** and **evidentiality**, which allow the speaker to assume various attitudes toward a proposition. **Epistemic** modality reflects various judgments of factuality and **deontic** modality communicates judgments of moral and legal obligation. Both can be seen as implying a comparison between the real world and hypothetical versions of it. **Evidentiality** is a term for the ways in which a speaker qualifies a statement by referring to the source of the information. We saw that in some languages this information is grammaticalized and therefore obligatory, implying that in these communities, calculation of evidence is assumed of speakers by their hearers. We look at the role of similar hearer assumptions, for example that the speaker is estimating and updating her audience's state of knowledge, in chapter 7.

## EXERCISES

- 5.1 **Stative verbs** typically do not occur in the progressive aspect nor as imperatives. Use these two facts as tests to decide which of the following verbs are stative. If you identify stative and non-stative uses for a verb give examples of the two uses.

seem think imitate possess know resemble lack  
seize last comprise lose prefer

- 5.2 As we saw, some verbs can have distinct **stative** and **dynamic** senses. For each of the following verbs, provide two sentences: one with the verb in a stative sense and the other a dynamic sense. You can use the progressive test, as in the last exercise, to distinguish between the senses.

admire equal appear hold contain reach cost smell

- 5.3 We noted that adding a **durative** adverb like *all night* or *for three hours* to a **punctual** verb like *cough* results in an **iterative** or repetitive interpretation (i.e. “again and again”). Thus in *The patient coughed all night* we interpret the activity as a sequence of individual coughs throughout the night. Use this behavior to identify the punctual verbs among the following:

read drive ring tap sigh fly twitch sob float

- 5.4 We saw that some verbs may describe **bounded (telic)** or **unbounded (atelic)** processes, depending on the form of their complements. Thus while *build a bridge* is a bounded process, *build bridges* is an unbounded process. Below is a list of verb phrases. For each one decide whether it is bounded or unbounded, then see if you can change this value by altering the verb’s complement.

ate oranges ripen  
swim direct movies  
rig an election walk to the station  
put out fires

- 5.5 In this chapter, we identified a number of English tense/aspect forms, e.g. the past perfect form in *she had realized*. Identify the tense/aspect forms of the italicized verbs below:

- a. They *founded* a school of medicine.
- b. A guy *was telling* them a joke.
- c. Who *decides*?
- d. They’ve *eaten* a lot of peanuts.
- e. She *will bring* the money.

- f. You're *treating* me like a child.
- g. They *will have reached* the warehouse by now.
- h. I'm *sitting* here.

5.6 Below are paired examples containing **simple present** and **present progressive** verb forms. Explain what semantic differences you detect (if any) between the pairs.

- 1 a. My brother works in France.
- b. My brother is working in France.
- 2 a. We leave tomorrow.
- b. We are leaving tomorrow.
- 3 a. You look good.
- b. You're looking good.
- 4 a. She lives near the airport.
- b. She's living near the airport.
- 5 a. You eat too much meat.
- b. You're eating too much meat.
- 6 a. You always laugh at me.
- b. You're always laughing at me.

5.7 We described the use of **modal verbs** to convey **epistemic modality**. In the following sentences discuss what the modal verbs (in bold) tell us about the speaker's attitude.

- a. This **could** be our bus now.
- b. They **would** be very happy to meet you.
- c. You **must** be the bride's father.
- d. The bus **should** be here soon.
- e. It **might** freeze tonight.
- f. He **will** be home by now.

5.8 Some sentences with modal verbs are ambiguous between an **epistemic** and a **deontic** reading. For each of the sentences below, try to imagine two contexts: one where the sentence might be used with an epistemic reading and the other a deontic reading. Once again modal verbs appear in bold type.

- a. Alcohol **may** not be served to persons under twenty-one.
- b. You **can** go home now.
- c. We **could** take the examination early.
- d. You **will** not leave this island.
- e. We **should** be at the hotel by nine.

5.9 One use of the **subjunctive** mood in English is in *that*-clauses which report a suggestion or proposal, as in 1 below. As is shown by 2 below, this use is paralleled by clauses with the modal verb *should*:

- 1 Subjunctive
  - a. He proposed *that the meeting come to a close*.
  - b. She agreed *that the house be sold*.
- 2 Modal verb
  - a. He proposed *that the meeting should come to a close*.
  - b. She agreed *that the house should be sold*.

As 1 shows, the form of the subjunctive in English is the base (or bare stem) form of the verb. Decide which of the following verbs may take a subjunctive *that*-clause by constructing example sentences:

urge demand beg remember command report tell warn deny  
insist decide request promise suggest

- 5.10 Chafe (1986), discussing **evidentiality** in English, identifies five sources for information. In the following the marker of evidentiality is shown in bold.

- |                     |  |
|---------------------|--|
| 1 belief:           | the information is already held by the speaker, who makes no overt reference to evidence, e.g. <b>I think that</b> <i>democracy means more than just one person one vote</i> ; |
| 2 induction:        | the speaker concludes the information from evidence, without specifying the type of evidence, e.g. <i>The exit <b>must</b> be blocked</i> ;                                    |
| 3 sensory evidence: | information from perceptual evidence, e.g. <b>It smells like</b> <i>they're having a barbecue next door</i> .  |
| 4 hearsay evidence: | information acknowledged as being told to the speaker by others, e.g. <i>They're <b>supposed</b> to be having an affair</i> ;  |
| 5 deduction:        | the speaker uses a hypothesis to predict a fact, e.g. <i>The snow <b>should</b> melt more quickly near the sea</i> .   |

Below are some sentences containing markers of evidentiality. For each sentence identify the marker and say which of these five sources of information you think is involved. Some markers may be appropriate with more than one type of source; if you think this is the case, please note it.

- a. Apparently Fred doesn't like skiing.
- b. Electrons should flow through the wire from  $\text{Fe}^{2+}$  to  $\text{MnO}_4^-$ .
- c. You look like you need a stiff drink.
- d. Evidently we're no longer welcome here
- e. He sounds a bit unsure of himself.
- f. You must be very tired after your journey.
- g. The jeweler was the ringleader, allegedly.
- h. I suppose that I'd better go to the lecture.

## FURTHER READING

Comrie's *Aspect* (1976) and *Tense* (1985) are concise monographs, using examples from a range of languages. Smith (1991) discusses universals of situation type and aspect and gives brief descriptions of the aspectual systems of English, French, Russian, Mandarin Chinese, and Navajo. Rothstein (2004) is a detailed discussion of the semantics of situation type. Binnick (2012) is a collection of articles covering recent research on tense and aspect. Palmer (1986) and Bybee and Fleischman (1995) contain discussions of modality systems in various languages. Bybee et al. (1994) contains a large cross-linguistic survey of tense, aspect and modality. The marking of these semantic categories on the English verb can be seen in Leech (1971), and the comprehensive reference grammar Quirk et al. (1985). Aikhenvald (2004) provides a survey of evidential systems in a wide range of languages.

## NOTES

- 1 Transcription as in the original, where tone is marked as follows: ā (macron) = high level tone, ó = rising; õ = fall-rise, ò = falling.
- 2 Though see Schmitt and Miller (2007) for some arguments that this is too simple a characterization.
- 3 See Dowty (1979) for a discussion of stativity and English verbs, especially verbs like *sit* and *stand*, which act like statives in many ways but allow progressive forms.
- 4 It is important to remember that the interpretation of a situation type depends on context. So example 5.57 is fine if we imagine a situation where Fred had the task of losing his keys. This changes the situation type to an accomplishment, which may occur with *finish*, as discussed later in this section.
- 5 See also Ogihara (1989).
- 6 Note that our translations here are meant to be suggestive: in fact, as my colleague Sarah Smyth has pointed out to me, the contrast between the English past progressive and past simple doesn't exactly capture the Russian distinction between imperfective and perfective. Thus 5.105 can also mean *He read a letter* or *He has read a letter*. The perfective form in 5.106 is more likely to mean *He read a letter (and then threw it away)*, for perfective verbs in Russian suggest continuation of narrative.
- 7 The French *imparfait* does not of course correspond to the Russian imperfective: for example, the French perfective *Tu as vu ce film?* would be translated into Russian as an imperfective *Ty videl etot fil'm?*
- 8 We discuss this notion of possible worlds in chapter 10.
- 9 In this transcription CM = "conjugation marker," ERG = ergative case.
- 10 We have glossed *show* in 5.153 as "possibly" but in fact it is a sentence type indicator, or **classifier**, which can only be used with verbs in the potential mood. See Saeed (1993) for more details, and chapter 8, section 8.5, where we discuss these classifiers in Somali and their status as sentence type markers.
- 11 The tone markings used here are á = high tone, and a (i.e. unmarked) = low tone. They are only marked on the first vowel of long vowels, e.g. *ée*.
- 12 Note that such subordinate clause verbs are finite, showing inflectional marking of person, tense, and aspect.
- 13 Another way of viewing what these uses of the subjunctive have in common comes from the modality of speech acts, to be discussed in chapter 8. This to recognize a common element of *non-assertion* in these clauses.

- 14 Aikhenvald gives a possible licensing context as follows: “If one sees that the football is not in its usual place in the house, and José and his football boots are gone, with crowds of people coming back from the football ground, this is enough for us to infer that José is playing football” (2004: 2).

## REFERENCES

- Aikhenvald, Alexandra Y. 2004: *Evidentiality*. Oxford: Oxford University Press.
- Binnick, Robert I. 1991: *Time and the Verb: A Guide to Tense and Aspect*. Oxford: Oxford University Press.
- Binnick, Robert I. (ed.) 2012: *The Oxford Handbook of Tense and Aspect*. Oxford: Oxford University Press.
- Butt, John and Carmen Benjamin 1994: *A New Reference Grammar of Modern Spanish*, second edition. London: Edward Arnold.
- Bybee, Joan 1985: *Morphology*. Amsterdam: John Benjamins.
- Bybee, Joan and Suzanne Fleischman (eds.) 1995: *Modality in Grammar and Discourse*. Amsterdam: John Benjamins.
- Bybee, Joan, Revere Perkins and William Pagliuca 1994: *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*. Chicago: University of Chicago Press.
- Carlson, G. 1977: Reference to kinds in English. PhD dissertation. University of Massachusetts at Amherst.
- Chafe, Wallace 1986: Evidentiality in English conversation and academic writing. In Wallace Chafe and Johanna Nichols (eds.) *Evidentiality: The Linguistic Coding of Epistemology*, 261–72. Norwood, NJ: Ablex.
- Chafe, Wallace and Johanna Nichols (eds.) 1986: *Evidentiality: The Linguistic Coding of Epistemology*. Norwood, NJ: Ablex.
- Chung, Sandra and Alan Timberlake 1985: Tense, aspect and mood. In Timothy Shopen (ed.) *Language Typology and Syntactic Description. Vol. 3: Grammatical Categories and the Lexicon*, 202–58. Cambridge: Cambridge University Press.
- Coates, Jennifer 1983: *The Semantics of Modal Auxiliaries*. London: Croom Helm.
- Comrie, Bernard 1976: *Aspect*. Cambridge: Cambridge University Press.
- Comrie, Bernard 1985: *Tense*. Cambridge: Cambridge University Press.
- Dahl, Östen 1985: *Tense and Aspect Systems*. Oxford: Blackwell.
- Declerck, Renaat. 2006: *The Grammar of the English Tense System: A Comprehensive Analysis*. (Grammar of the English Verb Phrase, Vol. 1). Berlin: Mouton de Gruyter.
- Diesing, Molly. 1992. *Indefinites*. Cambridge, MA: MIT Press.
- Dowty, David R. 1979: *Word Meaning and Montague Grammar*. Dordrecht: Reidel.
- Foley, William and Robert Van Valin 1984: *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Givón, Talmy 1972: Studies in ChiBemba and Bantu grammar. *Studies in African Linguistics*, supplement 3.
- Givón, Talmy 2001: *Syntax: An Introduction*, 2 vols. Amsterdam: John Benjamins.
- Hammer, A. E. 1991: *Hammer's German Grammar and Usage*, second edition revised by Martin Durrell. London: Edward Arnold.
- Hardman, Martha James 1986: Data-source marking in the Jaqi languages. In Wallace Chafe and Johanna Nichols (eds.) *Evidentiality: The Linguistic Coding of Epistemology*, 113–36. Norwood, NJ: Ablex.
- Hay, Jennifer, Christopher Kennedy and Beth Levin 1999: Scalar structure underlies telicity in “degree achievements.” In T. Mathews and D. Strolovitch (eds.) *Proceedings of Semantics and Linguistic Theory (=SALT) IX*, 127–44. Ithaca, NY: CLC Publications, Cornell University.

- Hockett, Charles F. 1958: *A Course in Modern Linguistics*. New York: Macmillan.
- Huddleston, Rodney and Geoffrey K. Pullum 2002: *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Jespersen, Otto 1931: *A Modern English Grammar on Historical Principles*, 4 vols. London: George Allen & Unwin.
- Judge, Ann and F. G. Healey 1985: *A Reference Grammar of Modern French*. London: Edward Arnold.
- Kratzer, Angelika 1994: The Event Argument and the Semantics of Voice. Manuscript, University of Massachusetts at Amherst.
- Lakoff, Robin T. 1968: *Abstract Syntax and Latin Complementation*. Cambridge, MA: MIT Press.
- Leech, Geoffrey N. 1971: *Meaning and the English Verb*. London: Longman.
- Leech, Geoffrey 2004: *Meaning and the English Verb*, third edition. London: Longman.
- Lewis, David K. 1973: *Counterfactuals*. Oxford: Blackwell.
- Lewis, David K. 1986: *The Plurality of Worlds*. Oxford: Blackwell.
- Ogihara, Toshi 1989: Temporal Reference in English and Japanese. PhD dissertation, University of Texas at Austin. (Distributed by Indiana University Linguistics Club, 1992.)
- Palmer, Frank R. 1986: *Mood and Modality*. Cambridge: Cambridge University Press.
- Palmer, F. R. 2003: Modality in English. In R. Facchinetti, M. Krug and F.R. Palmer *Modality in Contemporary English*, 1–17. Berlin: Mouton de Gruyter.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik 1985: *A Comprehensive Grammar of the English Language*. London: Longman.
- Rand, Sharon R. 1993: *The French Imparfait and Passé Simple in Discourse*. Arlington, TX: Summer Institute of Linguistics and the University of Texas at Arlington.
- Reichenbach, Hans 1947: *Elements of Symbolic Logic*. London: Macmillan.
- Rothstein, Susan 2004: *Structuring Events: A Study in the Semantics of Lexical Aspect*. Oxford: Blackwell.
- Saeed, John Ibrahim 1993: *Somali Reference Grammar*, second edition. Kensington, MD: Dunwoody Press.
- Schiffrin, Deborah 1981: Tense variations in narration. *Language* 57: 45–62.
- Schmitt, Cristina and Karen Miller 2007: Making discourse dependent decisions: The case of the copulas *ser* and *estar* in Spanish. *Lingua* 117.11: 1907–929.
- Sharman, John C. 1956: The tabulation of tenses in a Bantu language (Bemba: Northern Rhodesia). *Africa: Journal of the International African Institute* 26.1: 29–46.
- Smith, Carlotta S. 1991: *The Parameter of Aspect*. Dordrecht: Kluwer.
- Vendler, Zeno 1967: *Linguistics in Philosophy*. Ithaca, NY: Cornell University Press.
- Verkuyl, Henk J. 1972: *On the Compositional Nature of the Aspects*. FLSS, Vol. 15. Dordrecht: Reidel.
- Verkuyl, Henk J. 1993: *A Theory of Aspectuality: The Interaction between Temporal and Atemporal Structure*. Cambridge: Cambridge University Press.