Phoneticians divide sounds into two basic categories: **segments** and **suprasegmentals**. Segments comprise **vowels** and **consonants**. Vowels include things like the sounds in the words *oh, eye, ooh, ah*; they are made with no major obstruction in the vocal tract so that air passes through the mouth fairly easily. Consonants, such as */p n g s l/*, involve some type of obstruction in the vocal tract. When you make a */p/*, for example, your lips are closed, thereby completely preventing air from leaving through the mouth. Suprasegmentals involve sound components other than consonants and vowels. These include a variety of things such as stress, pitch, intonation, and length. You will have a clearer idea about these when we can discuss them in detail later in this chapter.

In this chapter you will learn about:

- the basic sounds of English;
- symbols for the basic sounds.

**Transcription**

The ordinary **orthography**, or spelling, of English is often quite different from the phonetic transcription. Frequently, words that sound quite different are written similarly; compare the pronunciation and spelling of the words *tough, though, trough, through, thorough.* All of these words have the letters *ough*, yet, each of them is pronounced differently. On the other hand, words that sound just alike are sometimes written differently; compare *sew, sow, so; to, two, too; led, lead; you, ewe, U, yew.* Clearly, for phonetic purposes, we want a way of writing things down that avoids this sort of ambiguity.

**Transcription** is the use of phonetic **symbols** to write down the way an **utterance** (a stretch of speech) is pronounced. One obvious goal of phonetics is to be able to **transcribe** accurately any utterance in any language. Achieving this goal is in fact rather more complex than you might think at first. To get started, we will investigate English. Each sound that we discuss in this chapter will be given a symbol. It is important to spend some time
now becoming proficient at transcribing English. In many ways, transcription is like typing: the more you do it, the more automatic it becomes. Appendix C shows how to write phonetic symbols.

The symbols used in this book follow the usage recommended by the International Phonetic Association. This system, popularly known as the International Phonetic Alphabet, is the most widely used set of symbols. Both the Association and the Alphabet are known as the IPA.

Quite apart from the choice of symbols is the way in which they are used to form a transcription system for a particular language. Actually, there are a number of systems which have been used for transcribing English. I should make it clear at the outset that, although I believe the transcription system presented here is a good one and suitable to our purposes, it is by no means universally used. In other books on phonetics or linguistics, you may well encounter other systems. Appendix D compares various transcription systems for English.

Although we usually think of speech consisting of a string of sounds, one after the other, phoneticians have discovered that segmentation, or the division of a stretch of speech into a string of discrete consonants and vowels, is not a straightforward task. You can easily observe that in most utterances, the tongue is constantly in motion. In a word like as, the tongue rises from low in the mouth for the vowel up to the alveolar ridge, but it is difficult to know exactly at what precise point the vowel ends and the consonant begins. We will continue to represent speech as a series of segments, but it is important to keep in mind that speech is produced by a complexly sequenced interaction of several moving organs.

**Accents of English**

English is spoken as a native language by over 377 million people around the world. Like other languages, English shows a considerable amount of geographic and social variation. Such variation forms different dialects. When we speak of accents, we mean only the features of the dialect regarding pronunciation. In Chapters 1–5, we will focus on two important accents: one British and one North American. Later, in Chapter 6, we will examine other accents of English.

Around 1400, the accent of the royal court emerged as the prestige accent of English. This accent was essentially the speech of upper-class London. A modern-day descendant of this accent continues as the prestige accent of England, and to a lesser degree of Scotland, Wales, and Ireland as well. It is the accent not only of the royal family and the nobility, but of the upper and upper-middle classes generally. It is the accent commonly
used by announcers for the BBC. This accent is known to linguists by the name **Received Pronunciation (RP)**, where the term *received* is used in the nineteenth-century sense of ‘correct, proper’. Although RP is spoken by individuals scattered throughout Britain, it has little regional variation; it is spoken as a native accent only by 3–5% of the population.

RP is the British accent usually taught to foreigners. Even by people who do not speak it, RP is widely regarded as ‘correct’. Linguists, of course, do not describe an accent as ‘correct’ or not; rather, they say that it is spoken by certain social classes, here by the upper classes and, in addition, by many of the well-educated.

The United States is a very large area with considerable accent variation, although not nearly so much as in Britain. The east of the US, having been settled longer, shows greater variation than the central and western areas. Very roughly, we can speak of an Eastern accent, spoken in New England; a southern accent, spoken in the south-east; and **General American (GA)** spoken in the central and western areas. The latter is the American accent presented here. Unlike Britain, there is no single prestige accent for the entire country; rather, each geographic region has a certain amount of social variation, although generally less than in Britain. GA is perhaps most familiar as the accent generally used by radio and television announcers for the national American networks. Like RP, GA is the accent usually used in teaching an American accent of English to foreigners. GA is less uniform than RP; some of the variations within GA will be pointed out as we proceed.

In Chapters 2–5, we will be presenting the sound systems of both RP and GA. Sections which apply to only one accent will be labelled accordingly. Note that accents can differ in two ways. They can have different systems; for example, we will soon see that RP has a vowel /ɔ/ not found in GA. On the other hand, two accents can have the same system, but a specific word may have different sounds in each. For example, both RP and GA have the two vowels /æ/ and /æ/.; however, the word *fast* has the vowel /a/ in RP, but /æ/ in GA. Note that with *fast*, speakers of RP and GA can both produce the other pronunciation with no difficulty. Both accents have words with /æ/ and /a/; it just happens that *fast* has different vowels in the two accents. With /ɔ/, however, GA speakers generally have trouble in reproducing the RP vowel /ɔ/ correctly. Similarly, RP speakers usually have trouble imitating the GA pronunciation of the /t/ in *city* accurately. In thinking about English accents, readers should bear in mind that most of the differences among English accents lie in the vowels, rather than in the consonants.

Keep in mind that in Chapters 2–5, our main goal is to understand phonetics, not to become specialists in English accents. We will overlook many details although some will be discussed in Chapter 6.
Consonants

Consonants are sounds that involve a major obstruction or constriction of the vocal tract; vowels are made with a very open vocal tract. If you say the vowel ee as in bee, you can feel that the air flows out of the mouth fairly freely. Now say a long /z/: /zzzzzzz/. Now start with the vowel ee, and move to a /z/, as in the word ease. You will feel your tongue move closer to the alveolar ridge for the /z/, making a partial closure causing the hissing noise which characterises /z/. On the other hand, if you go from a /z/ to an ee sound, as in the word zeal, you can feel your tongue pulling away a bit, allowing the air to pass out more freely. From this simple experiment, you can understand the basic difference between a consonant and a vowel.

Consonants are usually classified along three dimensions: voicing, place of articulation, and manner of articulation. In Chapter 1, we learned that voiceless sounds, such as /f s/, are made with the vocal folds apart, whereas voiced sounds, such as /v z/, are made with the vocal folds close together and vibrating. For each consonant that we discuss, we will note whether it is voiced or voiceless.

The place of articulation describes where the obstruction of the consonant is made, and the manner of articulation describes the nature of the obstruction. Each of the places and manners of articulation has a technical name; you will find phonetics much easier if you spend the time now to become familiar with these terms. Some of these have already been given in Chapter 1; others are described in detail below.

Place of articulation

The place of articulation is the description of where the obstruction occurs in the vocal tract. To describe the place of articulation of a consonant, we need to state which of the lower articulators articulates with which of the upper articulators. For example, for a /d/, the tip of the tongue is against the alveolar ridge, but for a /g/, the back of the tongue is against the velum. We have already discussed places of articulation generally in Chapter 1. Refer to the drawings there to see how the vocal tract is shaped for each place of articulation. Now the symbols for English sounds are introduced; Appendix C, at the back of the book, shows you how to write any unfamiliar symbols.

Bilabial

The bilabial sounds of English include /p b m/, as in the initial sounds of the words pea, bee, me. The lower lip articulates against the upper lip.
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The sounds /p b m/ are made by completely closing the lips. The sound /p/ is voiceless; /b m/ are voiced. The sound /w/, as in we, simultaneously involves both labial and velar articulations; it is discussed below under labial-velar.

/p/ pea, creepy, loop
/b/ bee, lobby, rub
/m/ moo, summer, loam

Labiodental

We have two labiodental sounds in English: /f v/, as in the initial sounds of the words feel, veal. When you make these, you will notice that your lower lip articulates against your upper teeth; /f/ is voiceless, and /v/ is voiced. The term labial is used to include both bilabial and labiodental sounds.

/f/ fun, daffy, laugh
/v/ veal, movie, glove

Dental

Two dental sounds occur in English; both are normally written with the letters th. Say the words thin and then while you feel your adam’s apple. You will feel the vocal folds vibrating for then, but not for thin. The initial sound of thin is voiceless /θ/, but the corresponding one of then is voiced /ð/.

The sounds /θ/ and /ð/ are apical, that is, the tip of the tongue is near or just barely touching the rear surface of the teeth. Air passes out with a soft hissing noise.

/θ/ (called theta) thin, ether, health
/ð/ (called eth) then, either, loathe

Alveolar

The alveolars include more consonants in English than any other place of articulation: /t d s z n l/. If you say the sentence Ed edited it, you will feel the tip of your tongue repeatedly hitting the alveolar ridge. Most English speakers make alveolars apically, but some speakers make them with a laminal articulation.

/t/ top, return, missed
/d/ done, sudden, loved
/s/ see, messy, police
/z/ zap, lousy, please
Postalveolar

Postalveolar refers to the area at the rear of the alveolar ridge, bordering on the palate. The tongue is arched with the blade near the postalveolar area. English has four sounds in this area; /ʃ/ is the initial sound in the word shoe; it is usually spelled sh. The voiced variety of this sound is found in the middle of the word measure; it is symbolised as /ʒ/. Traditional English orthography has no standard way of writing this sound. Try making these two sounds. Different people make them in slightly different ways, but generally there is an obstruction in the postalveolar region. With /s z/, you will feel the air hitting the back of your upper teeth; with /ʃ ʒ/, the air is directed more at the lower teeth. Two other sounds are postalveolar: the initial sound in the word chop, transcribed /tʃ/, and the initial sound in gem, transcribed /dʒ/. If you say etching slowly, you can probably feel the two separate sounds /t/ and /ʃ/ – and also the /d/ and /ʒ/ of edgy. These are called affricates and are described in more detail below.

/ʃ/ (called ʃesh)  shelf, assure, mesh
/ʒ/ (called ʃezh)  treasure, vision, rouge
/tʃ/  chin, etching, roach
/dʒ/  jam, edgy, ridge

Instead of IPA symbols, some authors use [ʃ, ʒ, ɻ, ʃ] for [ʃ, ʒ, tʃ, dʒ], respectively.

Retroflex

The initial sound in red is called retroflex. This name is used because many people produce it by curling the tip of the tongue up and back towards the rear edge of the alveolar ridge. In making this sound the tip of the tongue does not actually touch the back of the alveolar ridge, but approaches it. Many people, however, make the sound /r/ in a quite different manner (Delattre and Freeman, 1968). They make a bunched /ɹ/ with the tip of the tongue down, pulling the body of the tongue up and back; the articulation is between the rear portion of the blade and the alveolar ridge. We will use retroflex as the name for the place of articulation for both kinds of English /ɹ/. Whichever kind of /ɹ/ you normally make, try to make the other kind. The upside-down /ɹ/ you normally make, try to make the other kind. The upside-down /ɹ/ is the IPA symbol for this English sound. Later on, we will find a use for the right-side-up symbol [r], which represents a trill.

/ɹ/  run, airy
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Palatal

**Palatals** are made with the front of the tongue articulating against the palate. In practising palatal sounds, you will find it helpful to anchor the tip of your tongue against the lower teeth. Doing this is not necessary in making palatals, but it helps prevent mistakes.

The only palatal in English is the sound /j/, the initial sound in *yes*. It is often written *y*, but it is also found in words such as *eunuch, use, few, and eve*. To avoid any confusion between the sound /j/ and the letter *j*, I would recommend calling the phonetic symbol /j/ by the name *yod*.

/j/ (called yod) yell, onion, fuse

Velar

**Velar** sounds are *dorso-velar*, with the back of the tongue articulating against the velum. In English the velars are /k ַ/ and /g ַ/. These are the final consonants in the words *sick, egg, and sing*.

/k/ kiss, locker, sock
/g/ gun, rugger, sag
/ŋ/ (called eng) singer, bang

Most people do not have a well-developed *kinaesthetic* feel for velars. *Kinaesthesia* is the ability to perceive the muscle movements of one’s own body. It is important to be able to relate a sound to the position of the organs of the vocal tract which produce that sound. The exercises at the end of this chapter provide material to help you develop this ability.

Glottal

The **glottal** place of articulation is somewhat different from the others we have discussed so far. Up to now, all the points of articulation have been in the oral cavity. The glottal stop /ʔ/, however, is made in the larynx by holding the vocal folds tightly together so that no air escapes. If you hold your breath with your mouth open, you will make a glottal stop. Try this a few times to get a kinaesthetic feeling for a glottal stop. Many English speakers use a glottal stop in saying *uh-oh: [ʔʌˈoʊ]*.

Labial-velar

The sound /w/ has a double place of articulation **labial-velar**, being both labial and velar. You can easily observe that the lips are rounded when making a /w/; this lip-rounding makes it labial. At the same time, with a little experimenting, you can feel that the back of the tongue is raised towards the velum; thus, it is velar as well.
The basic sounds of English

/w/  wet, anyway

GA, but not RP, has a voiceless labial-velar sound /ʍ/.

/ʍ/  whet, anywhere

**Manner of articulation**

The manner of articulation is the degree and kind of constriction in the vocal tract. For example, in making a /t/, the tongue is raised to the alveolar ridge and momentarily seals off the vocal tract so that no air passes out. By contrast, during an /s/, we leave a gap between the articulators so that air continues to pass out. Notice that you can make a long, continuous /ssssss/, but not a long /ttttt/.

**Stops**

A stop involves a complete closure such that no air passes out of the mouth. In English /p t k b d ʃ/ are stops. In making each of these, a complete closure is made, at the lips, the alveolar ridge, or the velum, such that no air can escape through the mouth. The nasal stops /m n ɳ/ are a special kind of stop considered below.

**Fricatives**

Fricatives are sounds made with a small opening, allowing the air to escape with some friction. The escaping air is turbulent and produces a noisy friction-like sound, called frication. The fricatives in English are /f v θ ð s z ʃ ʒ m/.

**Approximants**

Approximants are consonants with a greater opening in the vocal tract than fricatives. Frication is absent with approximants. In English, this category comprises /l ɹ w j/. These are the initial sounds in loot, rule, wood, and use.

All approximants in English are voiced. Both fricatives and approximants are continuants.

The approximant /ɹ/ has already been described as a retroflex consonant. The approximant /l/ is an alveolar lateral. Laterals are sounds that are made with only the mid part of the articulators touching. Try making a long /l/: /lllllllllllll/. You will be able to feel the tip of your tongue touching the alveolar ridge. Both sides of the tongue, however, are pulled down slightly from the roof of the mouth so that air escapes around the sides of
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The tongue. A sound which is not lateral can be called central, although this term is usually omitted.

The glides /w j/ are considered approximants as well. Although glides function as consonants, phonetically they are moving vowels. They are discussed more fully with the vowels later in this chapter.

Affricates

Affricates are sequences of stop plus fricative. The English sounds /tʃ dʒ/ are postalveolar affricates. These are the sounds in church and judge, both at the beginning and the end of these words. In the initial part of /tʃ dʒ/, the tip of the tongue is at the rear of the alveolar ridge, somewhat back of its position in words like did. In the second part of the affricate, the tongue pulls away slightly from the roof of the mouth to form a fricative. The affricate /tʃ/ is regularly spelled ch or tch as in words like church, child, and hitch; /dʒ/ is usually spelled j, g, or dg as in joke, gem, and trudge. Make sure that you do not write /j/ when you mean /dʒ/, or /c/ or /ch/ when you mean /tʃ/. Note that although an affricate is a phonetic sequence, it functions as a single unit in English.

Nasals

The sounds /m n η/ are called nasals or nasal stops. For these three sounds, there is a velic opening, allowing air to pass out through the nose. Usually the term nasal is sufficient, but if we need to be explicit, we can call /m n η/ nasal stops and /p t k b d g/ oral stops. For a nasal sound, the velum is lowered, allowing air to pass out through the nasal passage. Note that nasals are stops in that no air passes out of the mouth; there is a complete closure in the oral cavity. For nasal stops, air escapes through the nose, but not through the mouth; for oral stops, on the other hand, no air escapes through the nose or through the mouth.

Other terms

The term obstruent includes oral stops, fricatives, and affricates. Non-obstruents are called sonorants; they include nasal stops, approximants, glides, and vowels. Obstruents involve an obstruction in the vocal tract sufficient to cause frication; with sonorants, the vocal tract is more open with a freer air-flow. The sounds /s/ and /z/ are often referred to as sibilants. Sibilants may include /ʃ/ and /ʒ/ as well. Liquids comprise laterals and r-like sounds. In English, these are /l r/. This grouping is useful because of the acoustic similarity of these sounds.

The glottal stop [?] is optional in English. Although the sound /h/ functions as a consonant, its production is more easily discussed with the vowels later in this chapter.
Summary of English consonants

Table 2.1 English consonants

<table>
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<th></th>
<th>bilabial</th>
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<th>postalveolar</th>
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<tr>
<td>stop</td>
<td>p b</td>
<td></td>
<td>t d</td>
<td></td>
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</tr>
<tr>
<td>fricative</td>
<td></td>
<td>f v</td>
<td>θ δ</td>
<td>s z</td>
<td>s z</td>
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<tr>
<td>affricate</td>
<td></td>
<td></td>
<td></td>
<td>tʃ dʒ</td>
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<td>nasal</td>
<td>m</td>
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<td>n</td>
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<td>approximant</td>
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<th>palatal</th>
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<tbody>
<tr>
<td>stop</td>
<td></td>
<td>k g</td>
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<tr>
<td>fricative</td>
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<td></td>
<td>θ*</td>
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<tr>
<td>nasal</td>
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<td></td>
<td>ɬ</td>
<td></td>
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<tr>
<td>approximant</td>
<td>ɬ</td>
<td>j</td>
<td></td>
<td>w</td>
</tr>
</tbody>
</table>

Note: * only in GA

Line drawings

A useful way of visualising the different, but often simultaneous, activities going on in the vocal tract during the production of consonants is with line drawings. Figure 2.1 (overleaf) shows the activities for a simple stop [b]. During the stop, we note three stages, the onset, the hold, and the release; these are respectively the coming together of the lips, the period when they remain closed, and their opening. The drawing shows time going from left to right. The two lines are separate during the vowel, and together during the stop; this drawing thus mimics the activities of the lips during the pronunciation of [aba].

To illustrate [add], we need a separate line for the alveolar activities. We will call this line coronal; coronal is a cover term for places of articulation involving the tip or blade of the tongue: that is, dental, alveolar, postalveolar, retroflex. The activities shown on this line in Figure 2.2 (overleaf) are parallel
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| a | b | a |

Onset          Release

Labial

Hold

**Figure 2.1** Line drawing of a bilabial stop

| a | d | a |

Labial

Coronal

**Figure 2.2** Line drawing of a coronal stop

to the previous example: the separate lines show that the vocal tract is open, the single line shows that the articulators are closed for the stop. During [adq], the lips do not close at all, so that the two labial lines remain apart throughout.

To account for all the sounds of English, we need three lines showing place of articulation: **labial, coronal, dorsal**; every consonant (except a glottal stop) will show some kind of narrowing on one of these three lines.

- **labial:** bilabial, labiodental
- **coronal:** dental, alveolar, postalveolar, retroflex
- **dorsal:** palatal, velar

The degree of stricture is shown by the separation of the two lines; fully open when there is no consonantal activity, slightly closed for an approximant /a l w j/, almost closed for a fricative, and a single line for a stop. Lateral should be marked *lat* above the stricture; dental, postalveolar, and retroflex can be distinguished by writing *den, p-a, ret* above the stricture, with alveolar left unmarked. We also need a line to show nasal activity. Note particularly that a single nasal line shows that velic closure occurs and that the sound is not nasal; a nasal sound involves velic opening and is shown by a divided line. We have also added a line called glottal to show the state...
of the glottis; a jagged line for voiced, and a straight line for voiceless. **Figure 2.3** shows /asɑ/ with a fricative stricture for the /s/ on the coronal line and also that the /s/ is voiceless on the glottal line with a straight line.

**Figure 2.4** shows the words *belts*, and *grump*. Study these carefully. Note how the sequence /lts/ appears on the coronal line in *belts*, whereas the /mp/ transition in *grump* appears on the velic line.

![Line drawing of a voiceless coronal fricative](image)

**Figure 2.3** Line drawing of a voiceless coronal fricative

/ b ɛ l t s / / g r a m p /

![Line drawings of belts and grump](image)

**Figure 2.4** Line drawings of *belts* and *grump*
How vowels are made

In making vowels, the vocal tract is more open than it is for consonants. Two elements are primarily involved in making different vowels: the shape and position of the tongue in the mouth and the shape of the lips. To get started, we will look at some of the vowels of English.

Try making the vowel in the word *he*; extend the vowel and say *heeeeee*. You can feel that the front of the tongue is fairly close to the forward part of the palate. (The front of the tongue, recall, is behind the tip and the blade.) This vowel is described as a high front vowel, transcribed /i/. Now, try making the vowel in *ah*, the one you make for the doctor to see your throat. This is described as a low back vowel, transcribed /a/. Go back and forth between these two vowels (/i/ and /a/), feeling the difference between high front and low back vowels.

We see then that the shape of the tongue is a primary factor in determining the quality of a vowel. Because of the difficulty of describing the shape of the entire tongue, phoneticians have often described vowels by the location of the highest point of the tongue as shown by the dots in Figure 2.5.

Figure 2.6 shows a chart used to plot vowel positions, in this case, the same vowels [i] and [α], as in Figure 2.5. In such a chart, we plot the position of the highest point of the tongue; we always put front vowels on the left and back vowels on the right. Every vowel that we can make can be plotted either inside the vowel chart or on its edge. The internal lines are present simply for reference purposes.

In studying vowels, consult a chart, such as Figure 2.6, which shows where the highest point of the tongue is, make the vowel, and try to feel how your own tongue is shaped.
In this way, you will develop a kinaesthetic feeling for making vowels and relating the sound to phonetic diagrams.

We will examine in detail the three basic articulatory qualities of vowels: **height**, **backness**, and **rounding**.

### Height

Try saying the words *peat, pit, pet, pat*. You will probably notice that your jaw moves down as you go through the list; with each vowel, your mouth is a little bit more open, and the highest point of the tongue is a little bit lower (Figure 2.7). This variation is what we mean by vowel height. X-ray pictures taken of English speakers uttering these vowels show that the tongue is quite high for /i/, lower for /ɪ/, and progressively lower until we get to /æ/.

We say that /i/ is a **high** vowel; that /æ/ is a **low** vowel; that /ɪ/ is higher than /ɛ/; and that /ɛ/ is higher than /æ/. The vowels in the middle range between high and low, such as /ɛ/, are called **mid** vowels.

### Backness

Try saying the vowels in *pan* and *palm*. The symbols for these are /æ/ and /ɑ/. Be sure to write the back vowel as /ɑ/, and not as /a/. Try to say them alone without any consonants: /æ æ æ æ ɑ ɑ ɑ ɑ/. Although both of these vowels are low vowels, you will feel your tongue change shape as you go from one vowel to the other (Figure 2.8). The high point of the tongue for /æ/ is in the front of the mouth, and the high point for /ɑ/ is in the back of the mouth (Figure 2.9). Just as we can make high and low vowels, so we also can make **front** and **back** vowels.
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Rounding

Height and backness are not the only dimensions for vowels. Try saying /i/ and /u/ – the vowels for key and coo. You will note that your lips are rounded for /u/, but not for /i/ (Figure 2.10). For each vowel, we specify whether it is rounded or unrounded.

Glides

Glides are moving vowels; they move rapidly from one vowel position to another; vowels, on the other hand, have a relatively steady articulation. Although phonetically similar to vowels, glides function either as consonants before a vowel or as the final portion of a syllable nucleus after a vowel.

The glide /j/ moves to or from a high front unrounded position. In a word like yell /jɛl/, the tongue starts at a high front unrounded position – approximately the position for /i/ – and then moves to the lower /ɛ/ position. The glide /w/ is similar, except that it moves either to or from a high, back rounded position; a word like well, starts at a high, back rounded position – like the position for /u/ – and moves to an /ɛ/ position. In yell and wet, the glides precede the vowel; glides which follow vowels are illustrated in the section below on diphthongs.

/j/ yell, you, yawn
/w/ well, wit, wand

In Figure 2.11, arrows show the directions of movements. A thicker line shows slower speed of tongue movement and thus greater prominence.
Diphthongs

A diphthong can be defined for the time being as a sequence of a simple vowel and a glide. (Note especially the spelling and pronunciation of diphthong – RP /³dfθɔŋ/ GA /³dfθɔŋ/; there is no /p/ sound.) Try saying the word *cow* slowly. Disregarding the /k/ at the beginning, if you listen carefully, you will hear that there are two parts to the rest of this word. It starts off with a low vowel; then it moves upwards to a vowel sound something like a /u/. The first portion is between /a/ and /æ/; we will transcribe it as /a/ (a different symbol from /a/). The second portion moves and is therefore a glide. It moves to a high front unrounded position like /u/, and we thus symbolise it as /w/. Thus, the word *how* is transcribed /haw/. Figure 2.12 shows the diphthong /aw/. The thicker part of the arrow shows the slower vowel part of the diphthong, and the thinner part with the arrowhead shows the end of the glide.

We will now consider the vowel systems of RP and GA separately, and then compare the two systems.

The RP vowel system

RP has the following vowels:

\[
\begin{array}{cccc}
i & u & ə & ʌn \\
i & ə & ʊ & ɛə \\
ej & ə & ɛ & əw \\
ɛ & θ & ɛ & ɛj \\
æ & ɛ & ə & aj \\
\end{array}
\]
The Sounds of Language

<table>
<thead>
<tr>
<th>beat</th>
<th>i</th>
<th>boot</th>
<th>u</th>
</tr>
</thead>
<tbody>
<tr>
<td>bit</td>
<td>i</td>
<td>put</td>
<td>u</td>
</tr>
<tr>
<td>bait</td>
<td>ej</td>
<td>hurt</td>
<td>ə</td>
</tr>
<tr>
<td>bet</td>
<td>ɛ</td>
<td>sofa</td>
<td>ə</td>
</tr>
<tr>
<td>bat</td>
<td>æ</td>
<td>but</td>
<td>ʌ</td>
</tr>
</tbody>
</table>

RP simple vowels

/i/  beat, see, these, piece
/ɪ/  bit, myth, ring, happy
/ɛ/  bet, bread, said
/æ/  bat, land, sang
/ɔ/  purr, stern, heard, fir
/ʌ/  putt, love, lung
/ʊ/  boot, cube, view
/ʊ/  put, wood, should
/ɒ/  bought, jaw, chalk
/ɔ/  pot, rob, box
/ɑ/  palm, father, far

Our last simple vowel is a mid central unrounded vowel, slightly lower than /ɔ/ (Figure 2.13); it has the special name schwa and is written /ə/. In RP schwa occurs only in unstressed syllables. Listen to the second vowel in sofa. This is a schwa; you may find it hard to hear because it is so short. If you slow down your pronunciation of sofa in an attempt to focus on the schwa more clearly, you are likely to distort its pronunciation.

/ə/  ago, open, enough, receive, vodka, character, paper, teacher, metre, anchor, colour, martyr

RP diphthongs

The diphthongs /aw aj ɔj/ (Figure 2.14) all start with low vowels and have long glides, either to a high front or high back position. The vowel /a/ represents a low front vowel; this is the position where the /aj/ and /aw/ diphthongs begin (Figure 2.14). The starting point for /aw/ is a little farther back than for /aj/. Note that the vowel in the diphthong is written /a/, not /ɑ/.

Figure 2.13 RP simple vowels

Figure 2.14 RP low diphthongs
The diphthongs /ej aw/ (Figure 2.15) both start from a mid vowel with glides shorter than with the low diphthongs. Notice how the lip rounding increases as you go from /ə/ to the rounded glide /w/. The reverse happens with /ɔj/; the lips are rounded for the /ɔ/ and become less so for the /j/.

/ej/  pay, made, break
/aw/  go, note, road

Three diphthongs are the historic result of the loss of /æ/. With these, rather than the /æ/ simply disappearing, it became a glide towards a /ə/ position (Figure 2.16). Since the glide moves towards a central position, we can call these the centring diphthongs.

/oʊ/  beer, here, hearing, idea, real
/ɛə/  bare, hair, their, Mary
/ʊə/  cure, moor, dour, mural, jury

In these diphthongs, the schwa should properly be written with a subscript diacritic [ɔ] to show that it is a glide, not a vowel (see Chapter 9). For the present, however, the diacritic is omitted for simplicity’s sake. Note that in many words, some RP speakers have /ɔ/ instead of /ʊə/: /kjɔ/ cure, /moɔ/ moor.

**The GA vowel system**

GA has the following vowels:

<table>
<thead>
<tr>
<th>IPA</th>
<th>GA</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>ï</td>
<td>u</td>
</tr>
<tr>
<td>ej</td>
<td>ə</td>
</tr>
<tr>
<td>ow</td>
<td>ɔ</td>
</tr>
<tr>
<td>æ</td>
<td>ʌ</td>
</tr>
<tr>
<td>æj</td>
<td>ɔ</td>
</tr>
<tr>
<td>aw</td>
<td>ɔ</td>
</tr>
</tbody>
</table>

*beat* i  *boot* u  *bit* i  *put* u  *bait* ej  *sofa* ə  *boat* ow  *bet* ɛ  *but* ʌ  *bought* ɔ  *boy* ɔj  *bat* æ  *palm* ɔ  *bite* æj  *bout* aw
GA **simple vowels**

- /i/  
  - *beet, see, these, piece, city*  
- /ɪ/  
  - *bit, myth, ring*  
- /ɛ/  
  - *bet, bread, said*  
- /æ/  
  - *bat, land, sang*  
- /u/  
  - *boot, cube, view*

Our last simple vowel is a mid central unrounded vowel (Figure 2.17); it has the special name **schwa** and is written /ɑ/. In GA, schwa occurs only in unstressed syllables and before /ʌ/. Listen to the second vowel in sofa. This is a schwa; you may find it hard to hear because it is so short. If you slow down your pronunciation of sofa in an attempt to focus on the schwa more clearly, you are likely to distort its pronunciation.

- /ɔ/  
  - *ago, open, enough, receive, vodka, character, purr, fir, heard, paper, teacher*

The diphthongs /aw aj ɵj/ (Figure 2.18) all start with low vowels and have long glides, either to a high front or high back position. The vowel /a/ represents a low front vowel; this is the position where the /aj/ and /aw/ diphthongs begin as shown in Figure 2.18. Note that the vowel in the diphthong is written /a/, not /ɔ/.

- /aj/  
  - *my, sigh, write, I*
- /aw/  
  - *cow, mouth, ouch, renown*
- /œj/  
  - *joy, noise, employ, foist*

The diphthongs /ej ow/ (Figure 2.19) both start from a mid vowel with glides shorter than with the low diphthongs. Notice how the lip rounding increases as you go from the lower /o/ to the higher glide /w/. The reverse happens with /œj/; the lips are rounded for the /œ/ and become unrounded for the /j/.

- /ej/  
  - *pay, made, break*
- /ow/  
  - *go, note, road*
**RP and GA: /h/**

Phonetically, /h/ is ordinarily realised as a voiceless vowel – just like the following vowel, except that the vocal folds are in a voiceless position. Although /h/ is a voiceless vowel in terms of its production, it functions as a consonant, occurring only at the beginning of a syllable. Thus the /h/ of he sounds like a voiceless /i/; the /h/ of head sounds like a voiceless /e/; the /h/ of who sounds like a voiceless /u/, etc. Most often, /h/ occurs at the beginning of a word; it never occurs at the end of a syllable. It is rather rare in the middle of a word.

/\h/\ he, hay, head, who, ahead, anyhow, overhaul

**Line drawings for vowels and glides**

On line drawings (Figure 2.20), vowels are shown with open strictures. Glides are shown with the partial stricture of approximants. The palatal glide /j/ is shown on the dorsal line; the labial-velar glide /w/ (and /m/ in GA) is shown on both the labial and the dorsal lines. Vowels are marked only as voiced. The phoneme /h/ is shown as a voiceless vowel.

/ w i l j e m /

Labial

Coronal

Dorsal

Velic

Glottal

**Figure 2.20** Line drawing of William

**Stress**

Say the words sofa, appear, lady, and recover one after the other. Now, hum them, saying something like *m* for each syllable. You will notice that some
syllables seem more prominent than others; we will say that the prominent syllables have a **primary stress** and that the other syllables are **unstressed**. The first syllables of *sofa* and *lady* have primary stress; whereas the primary stress falls on the second syllable of *appear* and *recover*. Primary stress is shown by a superscript vertical mark placed before the stressed syllable. The other syllables are unstressed and written with no special mark.

RP  /ˌsəʊʃə əˈlejdɪ əˈrɛkəvə/ sofa, appear, lady, recover

GA  /ˌsəʊʃə əˈpɛɾɪə əˈlejdɪ əˈrɛkəvə/  

Stress in English is manifested by a combination of three phonetic elements: greater loudness, higher pitch, and longer duration. Stress is an extremely important element in English. Consider the word *survey*, as a noun and as a verb. (We will discuss the vowel alternations in Chapter 4; for now just note the stress differences.)

RP  GA

To build the road, we’ll need a new *survey*.  /ˈsəvərɪ/  /ˈsəʊvərɪ/

This is the site we need to *survey*.  /ˈsəvərɪ/  /ˈsəʊvərɪ/

Notice that in the noun the first syllable has primary stress, whereas in the verb the second syllable has primary stress. This pattern, although subtle, is fairly common in English. Consider the words: *produce*, *subject*, *convert*, *convict*. Most native speakers of English will pronounce these differently as nouns and as verbs, placing the stress on different syllables.

Now try saying the words *helicopter*, *appetising*, *operator*. These words have primary stress on the first syllable. However, the third syllable in all of them seems to have some degree of stress as well. Say the words again to test this. For these syllables, we need a third level of stress, intermediate between primary stress and unstressed, which we can call **secondary stress**, marking it with a subscript vertical line before the appropriate syllable.

RP  GA

/ˈhelɪkɔptər/  /ˈhelɪkɔptər/  *helicopter*

/ˈæpəˈtæʒɪŋ/  /ˈæpəˈtæʒɪŋ/  *appetising*

/ˈɒpərəˈɛdʒɪŋ/  /ˈɒpərəˈɛdʒɪŋ/  *operator*

Secondary stress, by the way, is not limited to the third syllable. It also falls on other syllables, as the following examples show.

RP  GA

/ˈɔwˌpɛjk/  /ˈɔwˌpɛjk/  *opaque*

/ˈblækˌbɔːd/  /ˈblækˌbɔːd/  *blackbird*

/ˈəsɔwˈsɪlfən/  /ˈəsɔwˈsɪlfən/  *association*

/ˈɛnˈʒʊmərɛjt/  /ˈɛnˈʒʊmərɛjt/  *enumerate*
Marking the levels of stress accurately requires some practice. The exercises at the end of this chapter will get you started. We will look at stress in greater detail in Chapter 5. For now, assume that every phrase has one and only one primary stress and possibly one or more secondary stresses. In word lists, if a word has only one syllable, we usually do not mark the primary stress since it is predictable.

**Comparison of RP and GA**

**Inventory**

With the consonants, the most obvious difference between RP and GA is the loss of /ɹ/ in RP at the ends of syllables: RP /kəɹ/ GA /kəɹ/ ‘car’. This loss has affected the vowel system. The RP vowel /æ/ usually corresponds to GA /əɹ/, and the schwa-diphthongs /əɹ əɹ əɹ/ usually correspond to GA /əɹ əɹ əɹ/: near, hair, cure.

GA has retained the older voiceless /ʍ/ in words such as which, where, whine; in RP, this sound has merged with /w/.

In addition, RP has the low back rounded vowel [ʊ] which is missing in GA. Note also that the RP [ɔ] is made somewhat higher than the GA [ɔ].

**Distribution**

For the most part, the vowel corresponding to RP [ʊ] became unrounded in GA, thus merging with [ə]. However, in some GA words [ʊ] merged with [ɔ] and thus remained rounded. As a result, we have two sets of correspondences for RP [ʊ].

<table>
<thead>
<tr>
<th>RP</th>
<th>GA</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ɔ/</td>
<td>/ə/</td>
</tr>
<tr>
<td>/ʊ/</td>
<td>/ɔ/</td>
</tr>
</tbody>
</table>

Note that there is considerable variation in GA between the two vowels, especially before a following velar: fog, dog, log, mock, long.

Generally, words with RP /æɹ əɹ əɹ/ have all merged into GA /ɛɹ/.

<table>
<thead>
<tr>
<th>RP</th>
<th>GA</th>
</tr>
</thead>
<tbody>
<tr>
<td>/mɛɹi/</td>
<td>/mɛɹi/</td>
</tr>
<tr>
<td>/mæɹi/</td>
<td>/mɛɹi/</td>
</tr>
<tr>
<td>/mɛɹi/</td>
<td>/mɛɹi/</td>
</tr>
</tbody>
</table>
The Sounds of Language

RP and GA have the same stress system although occasionally the assignment of stress may be different. Different stresses often change the vowel; this will be discussed in Chapter 4.

<table>
<thead>
<tr>
<th>RP</th>
<th>GA</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ˈbætən/</td>
<td>/ˈbətən/</td>
<td>baton</td>
</tr>
<tr>
<td>/ləˈbruəti/</td>
<td>/ˈlæbruətri/</td>
<td>laboratory</td>
</tr>
<tr>
<td>/lækˈtejt/</td>
<td>/ˈlækˈtejt/</td>
<td>lactate</td>
</tr>
<tr>
<td>/ˈpʌmˈsɛs/</td>
<td>/ˈpʌmsɪs/</td>
<td>princess</td>
</tr>
</tbody>
</table>

The following is a short list giving examples of words which have different pronunciations in RP and GA but which do not fit into regular classes. This list could easily be considerably extended. Frequently, both RP and GA have minority pronunciations corresponding to the other accent; that is some RP speakers say /ˈvajtəm/ and some GA speakers say /ˈænti-/.

<table>
<thead>
<tr>
<th>RP</th>
<th>GA</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ˈæntənɪ/</td>
<td>/ˈæntənɪ/</td>
<td>Anthony</td>
</tr>
<tr>
<td>/ˈænti-/</td>
<td>/ˈantaj-/</td>
<td>anti-</td>
</tr>
<tr>
<td>/æt/</td>
<td>/eɪt/</td>
<td>ate</td>
</tr>
<tr>
<td>/bin/</td>
<td>/bin/</td>
<td>been (stressed form)</td>
</tr>
<tr>
<td>/bʊfəj/</td>
<td>/bəˈfəj/</td>
<td>buffet</td>
</tr>
<tr>
<td>/klək/</td>
<td>/klək/</td>
<td>clerk</td>
</tr>
<tr>
<td>/ˈkɒmpɔst/</td>
<td>/ˈkʌmpowst/</td>
<td>compost</td>
</tr>
<tr>
<td>/ˈkʌku/</td>
<td>/ˈkʌku/</td>
<td>cuckoo</td>
</tr>
<tr>
<td>/ˈʃətɪn/</td>
<td>/ˈʃuˈtɪn/</td>
<td>fourteen</td>
</tr>
<tr>
<td>/ˈfiɡə/</td>
<td>/ˈfiɡja/</td>
<td>figure</td>
</tr>
<tr>
<td>/ˈhæb/</td>
<td>/ˈæb/</td>
<td>herb</td>
</tr>
<tr>
<td>/ˈaɪˈzəjə/</td>
<td>/ˈaiˈzeə/</td>
<td>Isaiah</td>
</tr>
<tr>
<td>/ˈlɛʒə/</td>
<td>/ˈliʒə/</td>
<td>leisure</td>
</tr>
<tr>
<td>/ˈliːvə/</td>
<td>/ˈlevə/</td>
<td>lever</td>
</tr>
<tr>
<td>/ˈlɛfˈtənənt/</td>
<td>/ˈluˈtənənt/</td>
<td>lieutenant (army)</td>
</tr>
<tr>
<td>/ˈmɪsəɪl/</td>
<td>/ˈmɪsəl/</td>
<td>missile</td>
</tr>
<tr>
<td>/ˈprəɪmə/</td>
<td>/ˈprɪmə/</td>
<td>primer (introductory book)</td>
</tr>
<tr>
<td>/ˈprəɪvəsi/</td>
<td>/ˈprəɪvəsi/</td>
<td>privacy</td>
</tr>
<tr>
<td>/ˈfedʒʊl/</td>
<td>/ˈskɛdʒʊl/</td>
<td>schedule</td>
</tr>
<tr>
<td>/ʃən/</td>
<td>/ʃən/</td>
<td>shone</td>
</tr>
<tr>
<td>/ˈsʊlda/</td>
<td>/ˈsədə/</td>
<td>solder</td>
</tr>
<tr>
<td>/səˈdʒɛst/</td>
<td>/səɡdʒɛst/</td>
<td>suggest</td>
</tr>
<tr>
<td>/ˈstʊərp/</td>
<td>/ˈstʊərp/</td>
<td>stirrup</td>
</tr>
<tr>
<td>/ˈθətɪn/</td>
<td>/ˈθətɪn/</td>
<td>thirteen</td>
</tr>
<tr>
<td>/təˈmeɪtəw/</td>
<td>/ˈtəmejtəw/</td>
<td>tomato</td>
</tr>
<tr>
<td>/ˈtrækiə/</td>
<td>/ˈtɹeɪkɪə/</td>
<td>trachea</td>
</tr>
<tr>
<td>/ˈvɪtəmən/</td>
<td>/ˈvəɪtəmən/</td>
<td>vitamin</td>
</tr>
</tbody>
</table>
Technical terms

accent  
affricate  
alveolar  
apical  
  apico-alveolar  
  apico-dental  
approximant  
back  
  backness  
bilabial  
bunched /\  
central  
consonant  
continuant  
coronal  
dental  
diphthong  
  centring diphthong  
dorsal  
  dorso-velar  
frication  
fricative  
front  
GA/General American  
glide  
glottal  
height  
  high  
hold  
interdental  
International Phonetic Association/Alphabet/IPA  
labial-velar  
kinaesthesis  
kinaesthetic  
labial  
labiodental  
lamino-alveolar  
lamino-dental  
lateral  
line drawing  
liquid  
low  
manner of articulation  
mid  
nasal  
nasal stop  
obstruent  
onset  
oral stop  
orthography  
palatal  
place of articulation  
postalveolar  
release  
retroflex  
  retroflexed /\  
rounding  
  rounded  
unrounded  
RP/Received Pronunciation  
schwa  
segment  
  segmentation  
sibilant  
sonorant  
stop  
stress  
  primary stress  
  secondary stress  
suprasegmental  
symbol  
transcription  
  transcribe  
unstressed  
utterance  
velar  
vowel

Symbols

The following list gives the names for the phonetic symbols that we have used which are not ordinary letters of the alphabet.

[i] small cap i  
[e] epsilon  
[æ] ash  
[a] front a  
[a] back a  
[o] turned a  
[o] open o  
[u] small cap u  
[θ] theta  
[∫] epsilon  
[θ] schwa glide  
[θ] eng  
[θ] primary stress  
[∫] secondary stress  
[?] glottal stop  
[j] yod  
[ə] schwa  
[j] upside-down r  
[ŋ] eng  
[∫] primary stress  
[∫] secondary stress
Exercises

Basic

Exercises focusing solely on one of the accents will be so labelled.

1 a. The paragraph below describes the actions made during the consonant at the end of the word *sang*. Fill in the blanks, using the terms given in Chapter 1.

At the end of the vowel, the soft palate *(is lowered)* so that the air flows out the *(nasal passage)*. At the same time, the ___________ of the tongue rises to articulate with the ___________ , preventing air from escaping through the ___________. The lips remain ___________. The vocal folds continue to ___________.

b. Draw a sagittal section showing the consonant described in question 1a. Indicate voicing with a wavy line at the larynx and voicelessness with a straight line.

2 a. Consider the consonant at the beginning of the word *bat*. In a fashion similar to question 1a above, describe the actions of the vocal organs in producing this consonant.

b. Draw a sagittal section showing the consonant described in question 2a. Indicate voicing with a wavy line at the larynx and voicelessness with a straight line.

3 Read the following. Some of the symbols are not explained until Chapter 3, but you can probably guess the words.

<table>
<thead>
<tr>
<th>RP</th>
<th>GA</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ðə ˈwɔz ə jæŋ ˈmæn fæm ˈkælˈkætə</td>
<td>/ˈdeə ˈwɔz ə ˈjæŋ ˈlejdi nejmd ˈpækɪŋz</td>
</tr>
<tr>
<td>hu ˈkɔwtɪd iz ˈtɔnsəlz ˈwɪd ˈbætə</td>
<td>hu ˈwɔz ˈɪkˈstɪmlɪ ˈfænd əv ˈɡjuːn ˈɡækɪŋz</td>
</tr>
<tr>
<td>ən ˈbɛltɪd iz ˈsʌn</td>
<td>wən ˈdɛj æt æt ˈtɪ</td>
</tr>
<tr>
<td>fæm ˈmætf ən ˈsɛsənəs əs ˈtjuː</td>
<td>ʃi ˈlej tɹɛɹ ˈθəi</td>
</tr>
<tr>
<td>tu ə ˈsnaft əwliˈædʒməs ˈmætə/</td>
<td>ən ˈpi:kld æt ˈɪntənəl ˈwækɪŋz/</td>
</tr>
</tbody>
</table>

4 The following words all have the vowel /i/. Transcribe these words, paying attention to the consonants. Remember to listen to the sounds. English spelling can be quite misleading.

*be*  *seek*  *leaks*  *scene*
*neat*  *piece*  *deal*  *keys*

5 The following words all have the vowel /ɪ/, but some of the consonant sounds have special symbols: /ŋ/, as in song; /ɹ/, as in are; and /ʃ/, as in wash. Note that /ŋ/ is a single sound, although usually written with two letters —ng.

*sing*  *trick*  *ship*  *wick*
*rid*  *wring*  *nicked*  *squish*
6 Practise transcribing the following words with /æ i u/: 

- calm
- seed
- rude
- balm
- me
- moo
- heat
- through
- moon
- soothe
- sue
- peas
- do
- these
- lose
- loose

7 Now try a few more with other vowels:

- lip
- set
- gnat
- sick
- seek
- rose
- bad
- debt
- ring
- note
- his
- hiss
- bang
- fret
- freight

8 Practise transcribing these words which have /ɔ/, as in put; or /ʌ/, as in putt:

- book
- nut
- foot
- lug
- buck
- good
- mud
- should

9 Transcribe these words, which have various vowels:

- love
- push
- dumb
- zinc
- mash
- reign
- splat
- reach
- look
- said

10 Pronounce:

- sæg
- pag
- zen
- put
- mejt
- ml
- jem
- læs
- wan
- væt
- kad
- kod

11 Transcribe. RP: pay attention to /æ ɔ ø/; GA: pay attention to /æ ɔ/. 

- cat
- cart
- caught
- dock
- dark
- yacht
- lodge
- large
- cough
- cod
- card
- was
- Don
- dawn
- darn
- stark
- stalk
- stock

12 Note the difference in voicing between the initial consonants of thin /θ/, and then /ð/. Transcribe the following words:

- that
- thus
- myth
- three
- thee
- thumb
- tenth
- thwart
- thought
- though

13 Transcribe the affricates /tʃ/ and /dʒ/ in the following words. Be sure not to confuse them with /ʃ/ and /ʒ/:

- hutch
- gem
- jump
- chump
- jaw
- witch
- Scotch
- judge
- gel
- butch
- Jew
- botch

14 Each of the following items is the transcription for more than one word. How many different words can you find for each item?
The Sounds of Language

e.g.: /dow/ dough, doe
blu si led huz tu flu
plejn wejst pœj mit lut sajt

15 Correct these transcriptions:

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>glue</td>
<td>/glju/</td>
</tr>
<tr>
<td>knives</td>
<td>/knaivz/</td>
</tr>
<tr>
<td>reef</td>
<td>/rif/</td>
</tr>
<tr>
<td>shoot</td>
<td>/sut/</td>
</tr>
<tr>
<td>chew</td>
<td>/cu/</td>
</tr>
<tr>
<td>yes</td>
<td>/yes/</td>
</tr>
<tr>
<td>jump</td>
<td>/jamp/</td>
</tr>
<tr>
<td>gouge</td>
<td>/gawz/</td>
</tr>
<tr>
<td>wealth</td>
<td>/welø/</td>
</tr>
<tr>
<td>bloom</td>
<td>/blum/</td>
</tr>
<tr>
<td>done</td>
<td>/døwn/</td>
</tr>
<tr>
<td>Roy</td>
<td>/œj/</td>
</tr>
<tr>
<td>says</td>
<td>/sez/</td>
</tr>
<tr>
<td>lamb</td>
<td>/læmb/</td>
</tr>
</tbody>
</table>

16 Try the following words with the diphthongs /aj aw øj/. Note that the first two use the symbol /a/, not /a/: 

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>ride</td>
<td>boys</td>
</tr>
<tr>
<td>loud</td>
<td>dies</td>
</tr>
<tr>
<td>lines</td>
<td>soiled</td>
</tr>
<tr>
<td>spine</td>
<td>rouse</td>
</tr>
</tbody>
</table>

17 Transcribe the following words which have various diphthongs:

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>sliced</td>
<td>down</td>
</tr>
<tr>
<td>joist</td>
<td>coins</td>
</tr>
<tr>
<td>signs</td>
<td></td>
</tr>
</tbody>
</table>

18 Pay attention to /ə/ (and /æ/ for RP):

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>upon</td>
<td>fathom</td>
</tr>
<tr>
<td>her</td>
<td>sir</td>
</tr>
<tr>
<td>afire</td>
<td>fern</td>
</tr>
<tr>
<td>wallaby</td>
<td>deeper</td>
</tr>
<tr>
<td>blurt</td>
<td>fur</td>
</tr>
<tr>
<td>enough</td>
<td>surprise</td>
</tr>
</tbody>
</table>

19 The following words show some accent variation; that is, they are pronounced differently by people from different places. Transcribe these the way you ordinarily say them. Then compare your transcription with friends, particularly with someone from a different part of the English-speaking world.

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>fast</td>
<td>aunt</td>
</tr>
<tr>
<td>with</td>
<td>either</td>
</tr>
<tr>
<td>hearth</td>
<td>hover</td>
</tr>
<tr>
<td>garage</td>
<td>due</td>
</tr>
<tr>
<td>pen</td>
<td>schism</td>
</tr>
<tr>
<td>brooch</td>
<td>figure</td>
</tr>
</tbody>
</table>

20 Draw sagittal sections showing the consonants /b s η/. Make sure that the articulators are in the correct position and that you have the proper velic position. For a voiced sound, draw a wavy line at the glottis; for a voiceless sound, draw a straight line.

21 Draw sagittal sections for each sound in the words top, six, scream, eighth.

Advanced

The instructions are transcribed in RP to give you practice in reading phonetic transcriptions. If you speak with another accent, you should still be able to figure them out.
2 • The basic sounds of English

21 /wi həv həw ɬəvəd pl əl əl ˈbejsik sawndz əv ɱəlɪf. əl ˈpələwɜ ʃəˌsækɪz prəˈzent maˈʃənələ əv ɱəˈkəsɪŋ ˈdɪfɪkəlti. ˈbɪ ə ˈpɛj ˈɛlkənʃən tə ˈwʊt jə ˈsej, ˈhɒt tə ə ˈspɛlɪŋ wi ɜdəwəd əv mət ɬən ɬəw ˈsiləbl, ɨw ˈpɹəjum rɪstəs./

a. have ː half ː eggs ː voiced ː what
why ː jazz ː cloths ː clothes ː breath
breathe ː foiled ː sense ː cents ː breath

b. /mæk ˈpɹəjum rɪstəs in ɜdəwəd əv mət ɬən ɬəw ˈsiləbl/
machine ː ocean ː seizure ː anxious ː finger
 wringer ː longer ː danger ː sudden ː courage
sadness ː ginger ː pleasure ː either ː ether
 fissure ː ensign ː resource ː colonel ː fossils
victuals ː marquis ː valet ː helm ː tough
though ː through ː thorough ː cupboard ː hiccough

c. scours ː heart ː mirth ː tired ː fourth
roar ː spark ː spearing ː chair ː poured

d. jealous ː spank ː south ː southern
pooch ː poach ː idea ː wow
boiler ː higher ː English ː French

e. /ɪn əl ˈpələwɜ ɪdəwəd, ɪndɪˈkɛjt bɛəə ˈpɹəjum ən ˈsekəndi ˈstʌz./
tranquility ː epilepsy ː sassafras ː logarithm
diplomatic ː ineptitude ː architecture ː loquacious
salacious ː silversmith ː greengrocer ː ironmonger