Introduction

1 German: speakers and geography

Standard German is spoken by approximately 95 million speakers worldwide (Gordon 2005). It is an official language in Germany, Austria, Switzerland, Luxembourg, and Liechtenstein. It is the national (sole official) language in Germany, Austria, and Liechtenstein; in Switzerland it is an official language along with French, Italian, and Rhaeto-Romansh; in Luxembourg it shares official status with French and Luxemburgish (Lëtzebuergesch), a Mosel Franconian dialect. German is also an official regional language in Belgium, Italy, and Denmark, and is spoken in a number of other countries, including the Czech Republic, Kazakhstan, Poland, and Paraguay.

Standard German is the variety of German that is described in grammars and dictionaries. It is the “official” form of the language; texts written in German typically follow the spelling and grammar norms of this variety of German. Standard German is the form that is typically used in school in German-speaking countries and the variety that is taught to non-native speakers studying German as a foreign language. Although non-standard varieties of German will also be treated here (German dialects, Foreign Worker German, etc.), Standard German is the variety that is the focus of this study. The chapters on the sounds of German, the structure of German words, the regularities of word order, and so on deal with the standard language.

2 Objectives

This book aims to provide an introduction to the linguistic structure of Standard German that is rich in descriptive detail and grounded in modern linguistic theory. It includes a history of the language, a description of the major German dialects, and a discussion of sociolinguistic issues in addition to an analysis of the basic structural components of the language, namely, phonetics, phonology, morphology, syntax, and semantics. It is intended for a broad readership. It is written in such a way as to be accessible to university students in German and linguistics, teachers of German, and linguists with a variety of interests. Prior
knowledge of German is not required, as all necessary glosses and/or translations are provided for the examples in German. Professional competence in linguistics is also not essential; basic linguistic concepts are introduced briefly and specialist linguistic terminology is explained. A glossary of technical terms is also provided.

This book differs in its scope, depth, and focus from other linguistic introductions to German that are currently available in English. It is not concerned simply with the purely structural aspects of German, but also presents a detailed view of the language in its historical, regional, and social settings. Where other texts introduce the reader to linguistics with German as the object of investigation, this book focuses on the linguistic features of the language and explains linguistic concepts only briefly. Emphasis is placed on linguistic detail and the elucidation of insights into the language afforded by current linguistic research.

The general theoretical framework employed here is that of generative linguistics, the view that a formal and explicit set of rules (a generative grammar) underlies the knowledge that native speakers have of their language. The components of this grammar, which are all interrelated, include phonetics, phonology, morphology, syntax, and semantics. In general, a more traditional approach to theoretical issues is taken instead of one that represents the most recent directions in the field. The expectation is that an approach that has the advantage of time and exposure will be accessible to a wide audience.

3 Organization

The first four chapters deal with the major structural components of the language. Chapter 1 treats the phonetics and phonology of German, including phonological processes, phonotactic constraints, stress, and intonation. Chapter 2, which presents the morphology of German, deals with inflection as well as the word-formation processes of derivation, compounding, and reduction. The discussion of the syntax of German in chapter 3 includes a description of the phrase structure of the language, from noun phrases to sentential phrases, and highlights the salient characteristics of German word order. Chapter 4, which deals briefly with lexical semantics, focuses on issues of sentence-level semantics: tense and aspect, modality, and voice.

The final three chapters of the book treat variation in the language, from diachronic and regional to social. Chapter 5 presents a history of German, beginning with a description of its Indo-European and Germanic ancestors and then presenting the important phonological, morphological, and syntactic characteristics of three of the major periods of the language. Chapter 6 deals with regional variation. It addresses regional variation in the colloquial language and presents the characteristics of the major German dialects. It also describes the varieties of German spoken in Switzerland and Austria and deals with the
linguistic differences in Germany between the East and the West. Chapter 7 treats the sociolinguistic issues of style, forms of address, language and gender, youth language, the speech of foreigners, and the influence of English on German.

Each chapter includes exercises that are intended to give the reader practical experience in analyzing the language and an opportunity to put to use the information presented in that chapter. Solutions to the exercises can be found in the online answer key at www.cambridge.org/fagan.

NOTES

1 See chapter 6 for further discussion of German dialects and the relationship of these dialects to Standard German.
2 See Gordon 2005 for additional information on the countries in which German is spoken.
3 A number of the exercises do require a basic knowledge of German.
1 Phonetics and phonology

1.1 Phonetics of German

1.1.1 Introduction

The subfield of linguistics known as phonetics deals with the sounds of human speech. There are three branches of phonetics: articulatory phonetics, which is concerned with how the human vocal tract produces speech sounds; acoustic phonetics, which investigates the physical properties of the sound waves produced when we speak; and auditory phonetics, which deals with the way that speech sounds are perceived by listeners. This discussion of German phonetics focuses on the articulatory characteristics of the sounds of German.

Speech sounds are produced when an airstream is put into motion. In German, as in most languages, speech sounds are produced by pushing air from the lungs out of the body through the vocal tract. A diagram of the vocal tract is provided in Figure 1.1. To produce the different sounds of a language, the airstream is modified in various ways by manipulating the larynx (voice box), the velum (soft palate), the tongue, and the lips.

The larynx is made up of cartilages and muscle (see Figure 1.2). The vocal cords, two pairs of folds of muscle and ligament, are attached to the inner sides of the thyroid cartilage (the Adam’s apple) at the front of the larynx and to the two arynoid cartilages at the back of the larynx. The lower pair of folds can be spread apart or brought together by movement of the arynoid cartilages. When the vocal cords are spread apart and the airstream passes freely through the space between them, the glottis, the sound produced is characterized as voiceless. The sound produced when pronouncing the s in das ‘the’, for example, is voiceless. When the vocal cords are brought close together, but not completely closed, and the air passing through them causes them to vibrate, the sound that is produced is voiced. An example of a voiced sound is the vowel a in ja ‘yes’.

If the velum (the soft area at the back of the roof of the mouth) is raised against the back of the throat (pharynx), only allowing the airstream to pass
through the mouth, the sound produced is oral. All the sounds in the word *Lippe* ‘lip’ are oral. If the velum is lowered and air is allowed to pass through the nasal passages as well as through the mouth, the sound produced is nasal. The *m* in *Mutter* ‘mother’ is a nasal sound.

The tongue is a highly flexible organ of speech and plays an important role in the modification of the airstream. It can be lowered, raised, moved forward in the mouth, pulled back, and so on, so that it approaches or touches various surfaces in the mouth. Important parts of the upper surface of the vocal tract are the teeth, the alveolar ridge (the ridge behind the upper front teeth), the
(hard) palate (the roof of the mouth), the velum, and the uvula (the small piece of soft tissue that hangs down from the rear portion of the velum); see Figure 1.1.

The lips, which like the tongue are very flexible, are the final articulators to modify the airstream as it leaves the body. The lips can be used together with the teeth, as in the production of \textit{f} in \textit{finden} ‘to find’. They can also be used by themselves, in a rounded position, for example, as in the production of \textit{u} in \textit{Mutter} ‘mother’.

Linguists use special phonetic alphabets to represent speech sounds in order to ensure a one-to-one correspondence between sound and symbol. The symbols of conventional spelling systems typically do not have this characteristic. The symbol \textit{e} in the German spelling system, for example, can represent three different vowel sounds. Compare the conventional spelling of the following words with their phonetic transcriptions (phonetic symbols are placed between square brackets): \textit{nett} [net\textsuperscript{t}] ‘nice’, \textit{lebt} [lept\textsuperscript{t}] ‘lives’, \textit{Sache} [zax\textsuperscript{t}] ‘thing’. The symbols of the International Phonetic Alphabet (IPA) are used to represent speech sounds in this book.

1.1.2 \textit{The vowel sounds of German}

Vowels are those speech sounds that are produced \textit{without} a closure of the mouth or a narrowing of the speech organs to a degree that would produce audible friction when the airstream passes through the mouth. Five parameters are necessary to distinguish the different vowel sounds of German: tongue height, tongue position, lip position, length, and tenseness.

There is a direct correlation between the tongue height of a given vowel and the degree to which the mouth is open during the articulation of that vowel. The \textit{i} sound in \textit{Miete} [mi\textsuperscript{t}b\textsuperscript{t}] ‘rent’ is a high vowel; the mouth is almost closed during the articulation of this vowel. The \textit{e} sound in \textit{Fee} [fe\textsuperscript{t}] ‘fairy’ is a mid vowel; the mouth is half open (the jaw is lowered somewhat) to pronounce this vowel. The \textit{a} sound in \textit{Saal} [za\textsuperscript{t}] ‘hall’ is a low vowel; the mouth is open wide (the jaw is quite low) during the production of this vowel.

The parameter of tongue position refers to the location of the highest point of the tongue, from front to back in the mouth. The \textit{i} sound in \textit{Miete} [mi\textsuperscript{t}b\textsuperscript{t}] is a front vowel; the highest part of the tongue during the articulation of this vowel is at the front of the mouth, under the palate. The \textit{e} sound in \textit{Mitte} [mi\textsuperscript{t}b\textsuperscript{t}] ‘middle’ is a central vowel; the highest part of the tongue is somewhat further back in the mouth than for \textit{i}. The \textit{u} sound in \textit{Fuß} [fus\textsuperscript{t}] ‘foot’ is a back vowel; the highest point of the tongue is in the back of the mouth under the velum. The difference in tongue position between front and back vowels is especially apparent if you pronounce a front vowel like \textit{i} [i\textsuperscript{t}] and then a back vowel like \textit{u} [u\textsuperscript{t}].
During the articulation of a vowel, the lips can be rounded, as in the articulation of o in so [zo:] ‘so’. The lips can also be spread apart (unrounded), as in the pronunciation of e in See [ze:] ‘lake’. Lip position is thus a matter of lip rounding. We say that [o:] is a rounded vowel; [e] is an unrounded vowel.

The length of a vowel is the duration of that vowel relative to the duration of other vowels. The a in Staat [ʃat] ‘country’ is a long vowel (length is represented using the length mark, i). The a in Stadt [ʃat] ‘city’ is a short vowel.

The parameter of tenseness is commonly described as involving the degree of muscular tension necessary to produce a vowel. Tense vowels are said to be produced with greater muscular tension than lax vowels. Although this has not been verified experimentally, there are phonetic differences between tense and lax vowels. In German, tense vowels are produced further from the mid-central position of the vowel area (the natural, relaxed position for the tongue) and are higher than their lax counterparts. The i in Miete [mɪtə] ‘rent’ is a tense vowel. It is somewhat higher and further forward than the i in Mitte [mɪtə] ‘middle’, which is a lax vowel. Tense vowels in German are long when they appear in a stressed syllable; they are short when unstressed. The i in Musik [muˈzik] ‘music’ is tense and long; in musikalisch [muˈzikalɪʃ] ‘musical’ it is tense but short because the syllable in which it occurs does not bear primary stress. (The raised vertical stroke, ′, indicates that the following syllable bears primary stress. Stress will be indicated in transcriptions only when relevant to the discussion. See section 1.2.6 for further discussion of stress.)

Table 1.1 lists the vowel sounds of German. Only the long variants of the tense vowels are included in this table. Examples of words that contain these vowels are provided in examples (1) through (3).
High vowels

(1) liegen ‘to lie’  lügen ‘to fib’
Kiste ‘box’  Küste ‘coast’
spucken ‘to haunt’  spucken ‘to spit’

Mid vowels

(2) lesen ‘to read’  lösen ‘to solve’
kennen ‘to know’  können ‘to be able to’
Käse ‘cheese’
bitte ‘please’  bitter ‘bitter’
Ofen ‘oven’  offen ‘open’

Low vowels

(3) Stadt ‘city’  Staat ‘country’

Table 1.1 tells us that [i:] is a high, front, tense, long, unrounded vowel. It differs from [y:] only in lip position; [y:] is a high, front, tense, long, rounded vowel. If you say [i:] and then round your lips, the resulting sound will be [y:]. If you consider all the front vowels in Table 1.1, you will notice that there are three additional pairs of vowels that differ from each other in this way (lip rounding): [i]/[y], [e]/[ø], and [ε]/[œ] in addition to [i]/[y]. The rounded vowels of these pairs ([y], [Y], [ø], and [œ]; found in words like süß ‘sweet’, fünf ‘five’, Öl ‘oil’, and Köln ‘Cologne’, respectively) are particularly interesting because they have no counterparts in English: English has no front rounded vowels.

A sound that stands out in Table 1.1 is [ε:]; it is the only vowel in German that is both lax and long. [ε:] is typically represented by orthographic ä or äh: Väter ‘fathers’, ähnlich ‘similar’. Although the [ε:] pronunciation in such words is considered standard, speakers in northern and central Germany substitute [e:] instead: [fetä], [e:nl].

The low vowels, [a] and [ar], are not marked for tenseness, and both are considered central vowels. Although some studies treat the two different a sounds in German as qualitatively different (e.g., differing in tongue position), they are treated here (following Mangold 2005, among others) as differing only in duration.

It turns out that there is an interesting relationship between these two vowels. When long a is unumlauted (in the formation of plurals, the derivation of er-nominals, etc.), the resulting vowel is [ε:], as the pairs of words in (4) demonstrate:

(4) Zahn [tsam] ‘tooth’  Zähne [tsɛːnə] ‘teeth’
jagt [jakt] ‘hunts’  Jäger [jeːɐ] ‘hunter’
Jahr [jaːɐ] ‘year’  jährlich [jeːɐliːç] ‘yearly’
As expected, when short \( a \) is umlauted, the resulting vowel is \( \varepsilon \), a sound that differs from \( \varepsilon \) only in length:

(5)  
\[
\begin{align*}
\text{Fall} & \ [\text{fal}] \ ‘\text{case’} & \text{F"alle} & \ [\text{f\varepsilon\l}] \ ‘\text{cases’} \\
\text{alt} & \ [\text{alt\varepsilon}] \ ‘\text{old’} & \text{"alter} & \ [\text{\varepsilon\l}] \ ‘\text{older’} \\
\text{Kamm} & \ [\text{k\varepsilon\m}] \ ‘\text{comb’} & \text{k"ammmt} & \ [\text{k\varepsilon\m\l}] \ ‘\text{combs (3rd person sg.’} \\
\end{align*}
\]

Two vowel sounds in German never occur in stressed syllables: \( \varepsilon \) (schwa) and \( \varepsilon \). Both are mid central vowels that are lax, short, and unrounded. \( \varepsilon \) is somewhat lower than \( \varepsilon \). In adjective and verb endings, \(<\varepsilon>\) is pronounced as \( \varepsilon \); \( \varepsilon \) is typically the pronunciation of \(<\varepsilon>\) when this sequence occurs at the end of words (angle brackets, \(<\)), indicate orthographic symbols):

(6)  
\[
\begin{align*}
\text{alte} & \ [\text{alt\varepsilon}] \ (\text{Leute}) \ ‘\text{old (people’} & \text{(ich) lese} & \ [\text{lez\varepsilon}] \ ‘\text{(I) read’} \\
\text{"alter} & \ [\text{alt\varepsilon}] \ (\text{Freund}) \ ‘\text{old (friend)’} & \text{Ler} & \ [\text{lez\varepsilon}] \ ‘\text{reader’} \\
\end{align*}
\]

The sounds we have discussed so far are monophthongs, vowels that do not show a change in quality (tongue height, tongue position) within a syllable. Vowels that do change in quality during a syllable (because of movement of the tongue during their articulation) are diphthongs. German has the three diphthongs illustrated in (7).

(7)  
\[
\begin{align*}
\text{[a\varepsilon]} & \ ‘\text{my’} & \text{Mai} & \ ‘\text{May’} & \text{Bayern} & \ ‘\text{Bavaria’} \\
\text{[a\varepsilon]} & \ ‘\text{Haus} \ ‘\text{house’} & \text{Couch} & \ ‘\text{couch’} & \text{Clown} & \ ‘\text{clown’} \\
\text{[\varepsilon\l]} & \ ‘\text{neu} \ ‘\text{new’} & \text{M"au\varepsilon} & \ ‘\text{mice’} & \text{Boykott} & \ ‘\text{boycott’} \\
\end{align*}
\]

Diphthongs are represented phonetically by two vowel symbols, the beginning and end points of the vowel articulation. One of the sounds in a diphthong is more prominent than the other. This is indicated by placing the diacritic \( \varepsilon \) under the less prominent of the two vowels. In the diphthongs in (7), the second vowel is less prominent.

In German, diphthongs also arise phonetically from two additional sources. A vocalic pronunciation of the \( r \)-sound, \( \varepsilon \), results in a number of different diphthongs. Some examples are \( [\varepsilon\l] \) in Tier \( [\text{t\varepsilon\l}] \ ‘\text{animal’} \), \( [\varepsilon\l] \) in Uhr \( [\text{\varepsilon\l}] \ ‘\text{clock’} \), and \( [\varepsilon\l] \) in Meer \( [\text{m\varepsilon\l}] \ ‘\text{sea’} \). A second source is non-native (but well-integrated) words that end in \(-\text{i}on\) or \(-\text{ation}\), in which we find the diphthong \( [\varepsilon\l] \): Emotion \( [\text{emots\varepsilon\l}] \ ‘\text{emotion’} \); Operation \( [\text{op\varepsilon\l\varepsilon\varepsilon\l}] \ ‘\text{operation’} \). In this diphthong, unlike the others discussed here, the first vowel is less prominent.

German also has nasalized vowels (indicated with the diacritic \( \sim \) ) in words that have been borrowed from French. Some of the nasalized vowels that occur in German are illustrated in (8).
Table 1.2 *Consonant sounds in German*

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>LD</th>
<th>A</th>
<th>PA</th>
<th>P</th>
<th>V</th>
<th>U</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop voiced</td>
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<td>ź</td>
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<td>ʔ</td>
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<tr>
<td>voiceless</td>
<td>p</td>
<td>t</td>
<td>k</td>
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<tr>
<td>voiceless aspirated</td>
<td>pʰ</td>
<td>tʰ</td>
<td>kʰ</td>
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<tr>
<td>Fricative voiced</td>
<td>v</td>
<td>z</td>
<td>j</td>
<td>ʁ</td>
<td>ʁ</td>
<td>ʁ</td>
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<td>ʁ</td>
</tr>
<tr>
<td>voiceless</td>
<td>f</td>
<td>s</td>
<td>ʃ</td>
<td>ç</td>
<td>h</td>
<td>ʁ</td>
<td>ʁ</td>
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<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td>ŋ</td>
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<tr>
<td>Lateral</td>
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</tr>
</tbody>
</table>

B = bilabial; LD = labiodental; A = alveolar; PA = postalveolar; P = palatal; V = velar; U = uvular; G = glottal

(8) [œ] *Balkon* ‘balcony’
     [œː] *Parfum* ‘perfume’
     [ɛː] *Teint* ‘complexion’
     [àː] *Restaurant* ‘restaurant’

A vowel is nasalized when the velum is lowered during its articulation and air is allowed to escape through the nasal cavity. Many of these words with nasalized vowels also have alternative pronunciations with an oral vowel followed by a nasal consonant in place of the nasalized vowel.4

(9) [œːŋ], [œːn] *Balkon* ‘balcony’
     [yːm] *Parfüm* ‘perfume’

Because nasalized vowels do not play a major role in the sound system of German (they occur in a relatively small number of loanwords from French), they will not be treated further.

1.1.3 The consonant sounds of German

Consonants are those speech sounds that are produced by impeding the flow of air in some way. The consonant sounds of German can be described in terms of manner of articulation (how the airstream is impeded), place of articulation (where the airstream is impeded), and state of the vocal cords. Table 1.2 lists the consonant sounds of German.

 Stops are those consonants that are produced by a complete closure in the vocal tract. The articulation of a stop involves closure, a build-up of pressure during closure (because the airstream is trapped), and then release of the closure, resulting in an “explosion” of air (stops are also called plosives). The p sound