The German Language
A Guide for Inquisitive Students

Ver. 7.2

WARNING

Um eine gute Note in der Klausur zu erzielen, genügt es nicht dieses Skript zu lesen. Sie müssen auch die “Show” sehen.

# Contents

Chapter 1: Discovering the German Language .......................... -1-

1 German as an area of inquiry ........................................... -1-

Chapter 2: The Sound of German ......................................... -3-

2 The standard dialect ...................................................... -3-

3 Overview of the German consonants ................................. -3-
   3.1 Contrasts between voiced and voiceless sounds ............. -4-
   3.2 Tense vs. lax ..................................................... -5-
   3.3 Comments on individual consonants .......................... -5-
      3.3.1 Vogel-V .................................................... -5-
      3.3.2 The strange case of /s/ ................................. -7-
      3.3.3 r-peculiarities ........................................... -7-
      3.3.4 The origin of <w> ........................................ -7-
      3.3.5 Foreign sounds .......................................... -8-
      3.3.6 The glottal stop .......................................... -8-

4 Vowels ................................................................. -8-

5 The German vowels ..................................................... -10-
   5.1 Vowel length .................................................... -11-

6 Accentuation and rhythm .............................................. -11-
   6.1 Stress timing ................................................... -12-

Chapter 3: Sound Change .................................................. -15-

1 Sound change ........................................................... -15-

2 Evidence for sound change ............................................ -15-
   2.1 Conservative Spelling .......................................... -15-
   2.2 Misspellings as evidence of sound change .................. -16-
   2.3 Rhymes as evidence of sound change ....................... -16-
   2.4 Expert opinions ............................................... -16-
   2.5 Loan words ...................................................... -17-
2.5.1 Dialects .......................................................... -18-
2.6 Kinds of sound change .......................................... -19-
2.7 Loss of sound ...................................................... -19-
2.8 Addition of sound ............................................... -20-
2.9 Assimilation ....................................................... -20-
2.10 Dissimilation ..................................................... -20-
2.11 Lengthening ...................................................... -20-
2.12 Shortening ....................................................... -21-
Rounding ................................................................. -21-
2.14 Unrounding ...................................................... -22-
2.15 Retraction ........................................................ -22-
2.16 Metathesis ....................................................... -22-
2.17 Breaking .......................................................... -22-
2.18 Smoothing ......................................................... -23-
2.19 Umlaut .............................................................. -23-
2.20 Ablaut ............................................................... -23-
2.21 Vowel harmony .................................................. -23-
2.22 Laxing ............................................................... -26-
2.23 Tensing ............................................................. -26-
2.24 Palatalization ..................................................... -26-
2.25 Nasalization ...................................................... -27-
2.26 How does sound change take place? ....................... -27-
2.27 Is sound change regular? ...................................... -28-
2.28 Standard languages ............................................ -30-
2.29 Limited time for application .................................. -31-
2.30 Analogy ............................................................. -31-
2.31 Ousting ............................................................. -33-
2.32 Substitution through borrowing ............................ -34-
2.33 Functional explanation ........................................ -34-
2.33.1 The Slavic genitive-accusative ......................... -34-
2.33.2 English word order ......................................... -35-
2.33.3 Alternative explanation .................................... -37-
2.34 Language mixture .............................................. -38-

3 Semantic change ..................................................... -40-
3.1 Types of semantic change ...................................... -40-
3.1.1 Narrowing ..................................................... -40-

3.1.2 Broadening ..................................................... -41-
3.1.3 Elevation ....................................................... -41-
3.1.4 Denigration .................................................... -41-
3.1.5 Transfer ........................................................ -41-
3.1.6 Hyperbole ..................................................... -42-
3.1.7 Litotes .......................................................... -42-
3.1.8 Metaphor ........................................................ -42-
3.2 The etymologist’s method ..................................... -42-
3.3 How close is close enough? ................................... -44-

Chapter 4: The Comparative Method I - English and German ........................................ -45-
1 English and German .............................................. -45-
2 Obvious similarities ................................................. -45-
3 Patterned correspondences ...................................... -46-
4 Words related in meaning ........................................ -47-
5 Historical records .................................................. -48-
6 Similarities in inflection ......................................... -49-
7 Parallels in syntax (“Satzbau”) ................................. -50-
7.1 German and English syntax .................................... -51-
7.2 English and German – Affectionate Sisters ................ -53-
8 Direction of change ................................................ -53-

Chapter 5: The Comparative Method II – Researching the Past ........................................ -57-
1 Finding the apples - which languages to compare .......... -57-
1.1 Geography ........................................................ -57-
1.2 The meaning bridge ............................................. -57-
2 The strong (ablauting) verbs ........................................ -119-
3 The preterite-present verbs ........................................ -127-
4 Personal endings and vowel harmony .......................... -127-
  4.1 The modern verb endings ........................................ -129-
5 “Grammatischer Wechsel” ......................................... -130-
6 Me, me, me! .......................................................... -131-
7 The “weak” verbs .................................................... -132-
  8 The “weak” past .................................................... -132-
  8.1 The causatives .................................................... -133-
  8.2 Rückumlaut .................................................... -133-
  8.3 “Bringen, brang, gebraunen” .................................. -133-
  8.4 Second weak conjugation: the ā-class ..................... -134-
  8.5 Third weak conjugation: the ē-class ..................... -134-
  8.6 Suppletive verbs ................................................ -135-
  8.6.1 The verb be ................................................ -136-
  8.7 A case of doubt ................................................ -136-
  8.7.1 The forms ................................................ -136-

Chapter 10: Pronouns and Adjectives - a Radical Reanalysis ........................................ -139-
1 Pronoun, Demonstrative, Adjective and Clitics ................. -139-
  1.1 The anaphoric pronoun ........................................ -140-
  1.2 What to do without a clitic .................................... -141-
2 Bases and clitics - putting it all together ....................... -141-
  2.1 The Hittite connection ........................................ -143-
3 The “weak” adjective .............................................. -145-
  3.1 The traditional analysis - What’s in an -n? ............... -145-
  3.2 Hirt’s pronominal analysis .................................... -145-

4 Syntax vs. etymology .............................................. -146-
  4.1 Co-occurrence: determiner and weak adjective ............ -147-
  4.2 Relative clauses and the Hittite connection ............... -148-
  4.3 A small distraction ............................................ -149-
  4.4 Another distraction – interrogative pronouns ............... -149-
  4.5 The adjective construction .................................. -150-
  4.6 Article + noun construction .................................. -151-
  4.7 Resumptive pronoun ........................................... -152-

5 Comparison of adjectives ......................................... -154-

Chapter 11: Personal pronouns and numbers ....................... -157-
1 Personal pronouns ................................................ -157-
  1.1 Reflexive pronoun ............................................ -158-
2 Numerals .......................................................... -159-
  2.1 Cardinal numbers ............................................ -159-
    2.1.1 The numbers one through ten ......................... -159-
    2.1.2 The numbers eleven to nineteen ................... -161-
    2.1.3 The decades ................................................. -162-
    2.1.4 Hundreds, thousands, millions ................... -162-
  2.2 The ordinal numbers .......................................... -163-

Chapter 12: Syntax .................................................. -165-
1 The vastness of syntax ............................................ -165-
2 The V-II rule ..................................................... -165-
3 Brackets .......................................................... -166-
4 Scrambling ...................................................... -168-
  4.1 Lessons to be learned ........................................ -170-
Abbreviations used in this work:

Akk. Accadian
BE British English
Dan. Danish
Du. Dutch
Eng. Modern English
EOHG Early Old High German
Finn. Finnish
Germ. Modern German
Goth. Gothic
Gr. Ancient Greek
IE Indo-European
Ital. Italian
Lat. Latin
Latv. Latvian
Lith. Lithuanian
ME Middle English
MHG Middle High German
Mod. Ger. Modern German
Mod. Eng. Modern English
NHG New High German
OE Old English
OHG Old High German
ON Old Norse
OS Old Saxon
PG Proto-Germanic
PIE Proto-Indo-European
Swed. Swedish
WG West Germanic
Yid. Yiddish
Introduction for Instructors

There are many histories of the German language that consider the subject systematically and chronologically – beginning with *klewoghostis* the Indo-European1, proceeding in orderly fashion via *hlewa-gastiR* the maker of golden horns to *Ludegast* the Dane and ending with *Ludwig II* of Bavaria.

This approach to the subject for scholarly presentations and reference works needs no defense and I have appended a list of the works arranged in this way that I have found most helpful and most accessible over the years of my preoccupation with the subject (see Someday Reading in the Appendix). That I have found these works of immense value and have consulted them extensively during the composition of this book goes without saying.

I have decided, however, to follow a rather different plan of presentation in this book. Rather than taking *klewoghostis* as my point of departure, I have – as the title indicates – attempted to start with the inquisitive student.

To be sure, few students are as compulsively inquisitive about language as the author of these lines, who – to the everlasting despair of his parents – felt compelled to abandon the study of medicine for the far less glamorous pursuit of sounds, forms and syntax, but I do believe that it is possible to awaken interest in language if one starts from the known and proceeds to the unknown, or rather from the tangible to the sometimes elusive explanation.

Every student knows that the past and past participle of *schneiden* change the voicing of the stem final consonant: *schnitt*, *geschnitten*. None are aware of Karl Verner’s monumental achievement in explaining the origins of this simple alternation. Why, as I will ask my student readers in a moment, should we find silent <gh> in English where German has <ch> and why does the latter have two different pronunciations [χ] and [ç]? What does the English alternation *foot ~ foot~* mean?

---

1His name, as you know, rates a star because it was not recorded in writing. How we can know things that were never written down is one of the fascinations of our subject and will be explained later.
in the school curriculum, and is, incidently, not bad as an aid for method, far more so than many of the things that are routinely included fascinating science and an excellent source of insight into the scientific

consonantal skeleton is purpose – a worthy one – is to use English as a launching pad for learning fifteen European languages. Here the consonantal skeleton is sufficient and the vowels are a distraction: Eng. red ~ Ger. rot ~ Du. rood ~ Dan. red ~ Swed. röd. Our purpose, however, is to illustrate that linguistics – historical and descriptive – is, in its own right, a fascinating science and an excellent source of insight into the scientific method, far more so than many of the things that are routinely included in the school curriculum, and is, incidently, not bad as an aid for learning languages if that is your goal.

Hence, if we are avoid Voltaire’s often-quoted, but poorly documented criticism that etymology is a science in which the consonants count for little and the vowels for nothing at all, we must deal with the “vocalism” as well. Here, I have spread the most important facts about vowel change throughout the book where introduction seemed appropriate and understandable. Two other Chapters are in need of comment. First, “Pronouns and Adjectives – a Radical Reanalysis” is the summary of an unfinished doctoral dissertation that has lain dormant for some thirty years. It takes the position that the declension of adjectives and pronouns is not due to “borrowing” between these grammatical categories, but rather to a persistent base + clitic analysis as is evident in Hittite! I hope those who suffered with the original will derive some sort of satisfaction from seeing those ideas developed and summarized here.

Finally, no book on German for inquisitive students would be complete without a discussion of syntax. A historical approach here would go beyond the modest goals of this book and the patience of its readers. Hence, I have opted for a contrastive approach based loosely on classical Transformational Grammar. I say “loosely” because the approach is thoroughly and unapologetically eclectic. I have woven in my own heretical insights as well as some derived from Case Grammar, Relational Grammar and other sources. Sadly, I must acknowledge that this approach was necessary to explain (rather than defend) the phenomenon.

The portions of the text in small print are sidelines or comments or suggestions for further investigation. Following the fine old tradition of Paul and Braune (Sammlung kurzer Grammatiken germanischer

---

2This is certainly not a plea for eliminating organic chemistry or cosmology from the high school curriculum. As Robert of Gloucester put it in his Rhyming History of England (1298): “The more a man knows, the more his worth is.” It is just that it seems odd that college-bound graduates can tell you more about the rings of Saturn than what happens in their own mouths when they speak. I will make this point again when I address the student readers.
I have tried to avoid footnotes (mostly) or endnotes (entirely).

Instead of an extensive bibliography, I have offered students a small list of books under the rubric “Someday Reading.” These books, which I have commented, are sources that I can recommend to inquisitive students who wish to continue their investigation of the “awful German language” beyond what I have presented here.

In general, I have tried to avoid references to the literature in the text or the fine print except: (1) Where I thought the reader might want to consult the source and could directly benefit from it. (2) Where I wanted to make it particularly clear that one brilliant idea or another was not my own. (3) Where I found myself on thin ice and wished to strengthen my spine with the corset of authority.

Russell Block
Munich, 1 March 2008

Chapter 1: Discovering the German Language

1 German as an area of inquiry

For most readers, the title of this Chapter is quite likely something of a puzzle. For most students who have chosen this course, German is a fact of life – the mother tongue – something taken for granted like walking or eating. For international students, German is a means to an end – the gateway to an excellent education, a somewhat curious way of communicating with ninety-eight odd million people worldwide, who seem to prefer this archaic fossil language with six words for the and seven common ways of forming the plural of nouns to the world language – English.

German instruction for both groups is strictly “practical” in nature. Students, whether native or foreign, are not encouraged to inquire why some words that begin with the sound /f/ are written with <v> (Vogel, Vater, vier) while most are written with <f> (Fluss, Fall, fünf). Neither are they encouraged to look for the reasons behind the harmony of vowels in the “strong” verbs – helfen ~ half ~ geholfen, binden ~ band ~ gebunden, etc., or to ask why the plural of Hand should be Hände (with umlaut), but the plural of Arm should be Arme (without umlaut).

Strangely enough, you are encouraged to inquire about the order of the planets outward from the sun or the chemical reactions governing your digestion, understanding your own language or one you are required to learn is mostly taboo. Highschool graduates can tell us something about the surface of the moon, but haven’t the slightest idea about what happens in their mouths when they speak. Language instruction is like driving instruction – purely practical and uninteresting. In this course, we will take a look under the hood. We will find out how German “works” and how it came to be the way it is. Our approach will be both structural and historical – a combination of architecture and archeology – if you like.

This course has important practical goals as well. Learning about digestive enzymes probably didn’t improve your digestion much. Learning about the structure of German certainly will improve your German (if you are a non-native speaker) as well as increasing your
understanding of German and of languages in general.

In addition, we will look at German as a cultural phenomenon intimately tied to history and sociology and see how the growth of German reflects the social history of the German speaking peoples.

Moreover, our approach will be comparative. Throughout we will compare German to its sister language English, providing a familiar basis for explaining the present state of German. As a result, you should end up with a far better understanding and appreciation of the English language as well.

The material in this course is not difficult. I will give just enough detail to make the underlying principles understandable. Additional material is contained in the fine print. There are also numerous books that can give you a more thorough view of English and German so that you can continue on your own if you have the time and the interest to do so (see Someday Reading at the end of this book).

I should caution you, however, that the material, if not difficult, is thoroughly unfamiliar (not what you had in school) and requires some explanation. Regular attendance at the lectures is a must!

Finally, this course will provide numerous examples of how to solve scientific problems and discover hidden relationships (e.g., why does English have silent gh (or gh pronounced f) where German has ch as in pairs like night ~ Nacht, light ~ Licht, laugh ~ lachen)? Why does German have ss/ß where English has t (e.g., Nuss ~ nut, Fuß ~ foot, Wasser ~ water). How can we prove that English and German are affectionate sisters (closely related languages) because they have different words for the most important room in the house Küche ~ kitchen? This sort of training in scientific thinking will be valuable to you in whatever you do in life.

We will begin our investigation with the principles of phonetics and an investigation of the sounds of German. This will be followed by a discussion of historical change and the development of the science of language. We will then consider the origins of the formidable German inflection system – nouns, pronouns, adjectives and verbs, completing our survey with a glance at the external history – Why is “Mitteldeutsch” as spoken by native speakers of “Niederdeutsch” called “Hochdeutsch”?

---

**Chapter 2: The Sound of German**

1. **Standard German**

In this Chapter, we will explain the principles of phonetics (what happens in your mouth when you speak) and use these principles to illustrate the standard German pronunciation or “Hochlautung” as used on network television (ARD-ZDF-Deutsch). In addition, we will indicate important differences in regional speech (particularly Bavarian).

2. **The standard dialect**

The standard German dialect mentioned above is surprisingly not the pronunciation of any influential city or region (cf. Paris as the source of the French standard or Florence for Italian). Rather, the “official” pronunciation of German is based on the way speakers of Low German (‘Plattdeutsch’) pronounce the written literary standard based on the chancellery language developed in Upper Saxony (Meißen, Leipzig) during the fourteenth century. We will consider this in more detail below.

3. **Overview of the German consonants**

The following chart gives an overview of the German consonants using the IPA transcription found in most modern dictionaries. Consonants in the top row are voiceless, in the bottom row voiced.

<table>
<thead>
<tr>
<th>German Consonants</th>
</tr>
</thead>
<tbody>
<tr>
<td>stop</td>
</tr>
<tr>
<td>p</td>
</tr>
<tr>
<td>b</td>
</tr>
</tbody>
</table>

Unfamiliar symbols:
Note that the true consonants or obstruents (consonants that involve obstruction of the air stream) can occur in voiced and voiceless pairs. This is mother nature's way of giving us two for the price of one. That is, pairs like /s/ and /z/ are pronounced the same way (air is forced through a narrow slit formed by the tip of the tongue and the gum ridge), but /z/ involves, in addition, vibration of the vocal cords. German does not make full use of this distinction.

Stops are sounds that completely close off the air stream in the mouth. Fricatives, on the other hand, result (as indicated above) from forcing air through a narrow slit produced with tongue, lips and teeth.

Affricates are a combination of a stop and a fricative produced at the same place in the mouth. Instead of a sudden release (as with the stops), the affricates are released slowly, producing a fricative.

Sonorants (also called Resonants) are consonant sounds that do not involve obstruction of the air stream. In German (and most other languages) they only occur as voiced sounds. Liquids are so called because the air flows by the tongue like a liquid without friction. The quality of the liquid is determined by the shape of the tongue - or, in the case of German, by the vibration of the uvula or the tongue tip (uvular- or trilled-). Nasals are stops, that is, the air stream is closed off in the mouth, but released through the nose. Glides are produced by the movement of the tongue and lips onto or off a neighboring vowel.

Finally, /h/ is not produced in the mouth at all, but in the larynx. It is a voiceless fricative produced by creating a narrow slit between the vocal cords and forcing air through. This glottal fricative is nothing more than a voiceless copy of the following vowel or sonorant consonant.

3.1 Contrasts between voiced and voiceless sounds

German has a final devoicing rule which makes all obstruents (consonants pronounced with obstruction of the air stream, i.e., stops, fricatives and affricates) voiceless at end of a word or before a suffix beginning in a consonant, cf.

Thus, in final position (as defined above) voiced and voiceless consonants never contrast (cf. English, where said and set are quite different words and the difference is based on the voicing of the final consonant). Needless to say, carrying over this pronunciation habit into languages that do not have final devoicing (English, French, Spanish, etc.) can lead to disastrous consequences.

3.2 Tense vs. lax

In northwest German and British and American English there is an important distinction made between tense and lax consonants. The tense consonants (which are also voiceless) are pronounced with considerably more muscle tension in the vocal organs and more air pressure from the lungs. In south Germany, this distinction tends to be neutralized and the major difference between sounds pairs like /s/ and /z/ is one of voicing and not tenseness.

For Anglo-American ears, however, tenseness and not voicing is essential. A lax /s/ sounds like a /z/.

3.3 Comments on individual consonants

Compared to English, German spelling is quite rational. In the new orthography it is almost always possible to correctly pronounce a word one sees written. However, because of the peculiarities of historical development to be considered below, German has some rather strange features of spelling and pronunciation. We will note some of them here.

3.3.1 Vogel-V

A handful of words that begin with the sound /f/ are spelled with <v>, e.g., Vogel, Vater, vier, ver-, vor. Since there is no rational reason to spell the same sound two different ways, we must look for a historical explanation.
If we compare German <v> and <f> with English, a rather interesting pattern emerges:

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vogel</td>
<td>fowl</td>
</tr>
<tr>
<td>Vater</td>
<td>father</td>
</tr>
<tr>
<td>vier</td>
<td>four</td>
</tr>
<tr>
<td>hoffen</td>
<td>hope</td>
</tr>
<tr>
<td>schlafen</td>
<td>sleep</td>
</tr>
<tr>
<td>Schiff</td>
<td>ship</td>
</tr>
</tbody>
</table>

Note that German <v> corresponds to English <f> and German <f> to English <p>. The logical conclusion is that <f> and <v> originally represented different sounds that have fallen together in the course of history. The sound spelled <v> is common to all the Germanic languages. The sound spelled <f> is a later development that only affected High German.

Originally, they must have been pronounced differently, perhaps /f/ and /θ/ (a bilabial fricative – like blowing out a candle) or else <f> was voiceless and <v> was voiced (the majority view). In any case, in modern German, they have fallen together into /f/.

To be sure, most of the original spellings with <v> have been replaced with <f>, e.g., MHG vuozz = NHG Fuß, but Vogel-V seems to be here to stay. Even the new orthography has not challenged its position. Eliminating Vogel-V would change the general appearance of German texts beyond the limits of acceptability. Would you like to deal with: *Er wurde von vier fügeln im forraum foli angegriffen?*

### 3.3.2 The strange case of /s/
In south Germany there is no contrast between /s/ ~ /z/. The letter <s> is pronounced /s/ in all positions. In north Germany and in the official “Hochlautung” <s> is pronounced voiced /z/ at the beginning of a word. Because of the final devoicing rule, <s> is pronounced voiceless in final position. The only contrast between /s/ ~ /z/ occurs in the middle of a word after a long vowel. Compare: *Fliesen ~ fließen.*

### 3.3.3 r-peculiarities
The German speaking territory is divided as to how to articulate the consonant /r/. The northern two-thirds (and national networks) pronounce /r/ as a uvular trill [ɾ]. The southern third including Switzerland and Austria use a tongue-trilled /r/ [ʁ]. Both are officially recognized, but the uvular-ɾ has been making steady headway over its rival since the end of WWII.

An additional peculiarity is the almost universal application of r-dropping as in British English. That is, /ɾ/ is only pronounced if a vowel follows. Otherwise it is dropped entirely (after low vowels) or “vocalized” to [ɹ], e.g., *klar* [klɑ], *einer* [ainə]. There is no “linking-ɾ” in German (before a word beginning in a vowel) because no German words actually begin in a vowel. See below under “glottal stop.”

In the official stage pronunciation, r can be pronounced after a short vowel followed by a consonant or the end of a word as in *Narr* ‘fool’ or *wird ‘becomes’; but this rule is not followed in colloquial German.

### 3.3.4 The origin of <w>
The sound still written <w> and pronounced /v/ was originally a glide like its English counterpart. Since medieval Latin did not have this sound, the monks were hard put to find a way to represent it. They noted that the glide resembled the vowel sound /u/ and wrote it <uw> to distinguish it from the vowel – hence, the name “double-u.” Since they did not distinguish <u> from <v>, the modern form is derived from <uw> = <w>. In French, this letter is in fact called “double-v.” In the early NHG period the glide <w> became a voiced fricative, the
spelling remained, leaving <v> for the Vogel-V.

3.3.5 Foreign sounds
Although we have taken /ʒ/ and /dʒ/ into our inventory, these are not native sounds and occur only in foreign words borrowed from French, e.g., Journalist, or English, e.g., Dschungel. There is a tendency to substitute the voiceless counterparts /ʃ/ and /tʃ/ in casual pronunciation.

3.3.6 The glottal stop
The glottal stop is not actually a speech sound in either English or German (in the same way that /b/ or /s/ is), but it nevertheless plays a significant role in German pronunciation because it is inserted at the beginning of a word starting with a vowel or after prefixes as in Iss auch was /ɪs ʔaʊx ˈvaːs/ ‘Eat something too’ or Ereignis /ɐrˈʔaiɡnis/ ‘event’. This gives German its particularly “crisp” sound, which is extremely annoying when carried over to English.

4 Vowels
Vowel sounds are much more difficult to describe than consonants because they are not produced with stoppage or friction and are consequently difficult to “feel.” In addition, vowels are not discrete sounds but points in a continuum.

You can try this yourself by pronouncing the vowel sound in Eng. beat or Germ. biet(e). Notice that your lips are spread and your tongue is about as high and forward as it can go without causing friction in the air stream. Now, keeping your tongue forward, slowly open your mouth as wide as it will go. You will hear a unbroken continuum of sound from the vowel of Eng. beat to bat.

Now return to your starting point and pull your tongue back without opening your mouth. Your lips will automatically round and you will produce a vowel like Eng. do or Germ. du. Keeping your tongue back, you can once again open your mouth as wide as it will go, producing a spectrum of vowels between the starting point and the vowel of Eng. father or Germ. Vater.

The German Language – A Guide for Inquisitive Students

Given the up ~ down, front ~ back mobility of the tongue, vowels can be placed at any point on the two dimensional surface bounded by the four corner points we have experimentally determined.

This is the basis of the Cardinal Vowel system devised by Daniel Jones at the beginning of the last century. Since the distance between the corner vowels is rather large, Jones added for arbitrary mid-points front and back to make a set of eight “cardinal vowels.” These vowels act as universal points of orientation to facilitate the description of the real vowels of any given language.

The chart shows the cardinal vowels with the real vowels of modern German superimposed.

One additional parameter is necessary to indicate the quality of a given vowel – lip rounding. As indicated above, front vowels and the back vowel [a] are normally pronounced with spread lips in most of the world’s languages, while the back vowels [ɔ, ʊ] have increasing lip rounding as you move the tongue up.

Some languages also have vowels with reverse lip rounding – front rounded, or back unrounded vowels. Jones provided a set of “secondary” cardinal vowels for this eventuality. For German, we only need the four front rounded vowels [y, ø, œ]. These are like the “normal” vowels of the same height, but are pronounced with rounded lips. (See the table below.)
5 The German vowels

The following table gives the vowel sounds of standard German with keywords:

<table>
<thead>
<tr>
<th>Vowel</th>
<th>Example</th>
<th>Spelling</th>
<th>Gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>bit«n</td>
<td>bieten</td>
<td>offer</td>
</tr>
<tr>
<td>i</td>
<td>bit«n</td>
<td>bitten</td>
<td>ask</td>
</tr>
<tr>
<td>y</td>
<td>bys«n</td>
<td>büßlen</td>
<td>expiate</td>
</tr>
<tr>
<td>y</td>
<td>byf«l</td>
<td>Büffel</td>
<td>buffalo</td>
</tr>
<tr>
<td>e</td>
<td>bet</td>
<td>Beet</td>
<td>flower bed</td>
</tr>
<tr>
<td>e</td>
<td>bet</td>
<td>Bett</td>
<td>bed</td>
</tr>
<tr>
<td>o</td>
<td>bøj«e</td>
<td>böse</td>
<td>evil</td>
</tr>
<tr>
<td>œ</td>
<td>bœtʃa</td>
<td>Böttcher</td>
<td>barrel maker</td>
</tr>
<tr>
<td>u</td>
<td>bu«e</td>
<td>Buße</td>
<td>penitence</td>
</tr>
<tr>
<td>u</td>
<td>bus</td>
<td>Bus</td>
<td>bus</td>
</tr>
<tr>
<td>ʊ</td>
<td>boshaft</td>
<td>boshart</td>
<td>malicious</td>
</tr>
<tr>
<td>ɔ</td>
<td>bottʃ</td>
<td>Bottich</td>
<td>barrel</td>
</tr>
<tr>
<td>a</td>
<td>bas</td>
<td>Bass</td>
<td>bass</td>
</tr>
<tr>
<td>ə</td>
<td>bestə</td>
<td>Beste</td>
<td>best</td>
</tr>
<tr>
<td>å</td>
<td>besə</td>
<td>besser</td>
<td>better</td>
</tr>
<tr>
<td>ai</td>
<td>baisən</td>
<td>heißen</td>
<td>bite</td>
</tr>
<tr>
<td>au</td>
<td>bau</td>
<td>Bau</td>
<td>building</td>
</tr>
<tr>
<td>ɔy</td>
<td>bøytə</td>
<td>Beute</td>
<td>booty</td>
</tr>
</tbody>
</table>

The vowels occur in tense/lax pairs, as in *bieten ~ bitten, Beet ~ Bett*, etc. In addition the front vowels occur in rounded/unrounded pairs as in *bieten ~ büßen, Besen ~ Bösen*, etc.

5.1 Vowel length

In the chart above, vowel length has not been indicated. The reason for this is that the tense vowels are always long when accented and all other vowels are short. There is, however, one fly in the ointment. In south German a distinction is made between the vowel of *nähmen* and *nehmen*. The former has a long lax vowel /ɛː/. This is probably a spelling pronunciation – in any case, a feature that disturbs the otherwise perfect symmetry of the modern German vowel system.

For an explanation of the odd fact that German indicates a short vowel by writing a long (double) consonant as in *bitte*, see below.

6 Accentuation and rhythm

Both German and English share the same basic accent pattern alternating strong and weak syllables. However, a general vowel reduction in syllables adjoining the accented syllable as in English does not take place in German. Compare the pronunciation of *Revolution*:

In English /rEv«È luS«n/ with vowel reduction in the syllables preceding and following the main accent. In German /rəvəluʃiˈoʊn/, where the tense vowels are short except for the final accented vowel, but not reduced.

The alternation in German can be observed by comparing the pronunciation of *Vörläsung* with *Hauptvörläsung*.

Originally, the accent in Germanic was moveable (as in Greek or Russian). But, at an early stage (probably around the beginning of the common era (the year 0), it became fixed on the first syllable. For nouns with a prefix, this meant accentuation on the prefix: *Urlaub*, but for verbs, where the prefix had not yet been definitively attached to the root, the accent fell on the root syllable with subsequent reduction of the vowel of the prefix: *erläuben*.
In Gothic, a particle sometimes slips between the verb prefix and the stem, cf. *úbuhwopida* < *uf*-uh-wopida* ‘cried and out’. The particle -uh ‘and’ (= Lat. -que) comes between the prefix *uf*- and the verb *wopida*. Similarly, *üsugibiþ* ‘out now give’ from the verb *usgiban* and the particle -nu ‘now’.

In the modern language weak (originally verbal prefixes) like *ver-*-, *be-*-, *er-*-, are never accented whether in verbs or noun derivatives: *vertréten* ~ *Vertrétung*, *begéhen* ~ *Begéhung*, *erziehen* ~ *Erziehung*. These unaccented prefixes are also never separable from the verb stem. Contrast strong prefixes that can be either separable or inseparable depending on accentuation: *übersetzen* ‘ferry across’ *ich setzte ihn* (über den Fluss) über, ‘I ferried him across the river’ vs. *übersétzen* ‘translate’ er *übersétzte den Text* ‘he translated the text.’ As can be seen from the examples, the separable prefixes tend to have a more literal meaning, while the inseparable prefixes are more abstract.

### 6.1 Stress timing

German (like English) is a stress-timed language. That means that the time between stressed syllables is the same, independently of the number of syllables involved. The Romance languages, on the other hand, are syllable timed. Each syllable receives the same amount of time, producing a kind of machine-gun effect. Compare the following verses from Virgil (*Aeneid*, II, 792) in German and French translation:

**German:**

Dréimal versucht’ ich es noch, um dem Hals ihr die Arme zu schlingen,

Dréimal entflöh mir, vergébens erháscht, die Gestált aus den Händen.

**French:**

Trois fois je tente de mettre mes bras autour de son cou,

trois fois à mon étreinte vaine se dérobe son image.

Translation: ‘Three times I tried to fling my arms around her neck; three times her shape escaped my vain embrace.’

Note that the translation is in iambic hexameter – that is six feet with the pattern: weak, strong. This is a slight deviation from the traditional five syllable line (cf. Shakespeare) known as “blank verse,” but it sounds right for Virgil in English.

In French, on the other hand, each syllable receives the same amount of time:

Trois fois je tente de mettre mes bras autour de son cou,
trois fois à mon étreinte vaine se dérobe son image.

Translation: ‘Three times I tried to fling my arms around her neck; three times her shape escaped my vain embrace.’
Chapter 3: Sound Change

1 Sound change
In this section we will consider some of the ways that the sounds of a language may change—whether or not these changes are reflected in spelling. Below, we will briefly consider the major sound changes in German that forged the modern literary language. It should be emphasized that sound change effects all languages. The kinds of changes that take place can be organized into universal categories, but there is no telling whether any particular change will take place in a given language.

2 Evidence for sound change
As with any scientific investigation, we must first examine the possible sources of evidence for our inquiry. Sound recordings go back about one hundred years. Even trained observers can hardly detect differences in the standard British, American or German varieties in such a short time. It is easy to imagine that in societies with no historical records the idea of language change is completely foreign. After all, I have no difficulty in communicating with my grandmother and she had no difficulty communicating with hers—our language cannot have changed much. Nevertheless, Julius Caesar would be quite surprised by the Latin spoken in Rome today.

2.1 Conservative Spelling
A good deal of our knowledge about earlier stages of the language is thanks to the conservative traditions of spelling. Sounds change, but spelling, once fixed, remains. We will discuss the reasons for this in the chapter on spelling reform. Languages like English or Greek are quite extreme in this respect, preserving spellings that reflect the sounds of a distant past. In English the spelling system reflects the language as it was pronounced six hundred years ago. In Modern Greek, the historical lag is more than two thousand years!

The conservatism of spelling has a downside too. If spelling is conventionalized and does not change over time, it is difficult to
determine just when a change occurred. Consider a word like *weight*. The historical spelling indicates that could not have been pronounced as it is today. It is spelled today as it was pronounced six hundred years ago. But, when did the pronunciation change? The change is not reflected in the spelling.

2.2 Misspellings as evidence of sound change

“Correct” spelling is of no help in dating historical changes, but “mistakes” can be very revealing. Let us suppose that we are reading the minutes of a town meeting in New England in the year 1670. The recording secretary writes: “We weighted 30 minutes, but he did not appear.” This mistake (!) would not have been possible if *weight* and *wait* did not have the same sound. Hence, we are assured that the sound indicated by *<gh>* has become silent and that the vowels indicated by *<ei>* and *<ai>* have become identical, however they were precisely pronounced.

2.3 Rhymes as evidence of sound change

The long tradition of rhyming poetry assures us the syllables at the end of a line of poetry must rhyme. Thus, if a poet rhymes *weight* with *mate*, we can be sure that the historical *<gh>* has become silent and the vowels indicated by *<ei>* and *<a>* and *<ai>* (see previous section) have become identical. Some caution is advisable here. The tradition of rhyming is also subject to historical influence. Words that no longer rhyme may be used in rhymes as part of a “poetic tradition.”

2.4 Expert opinions

The professional linguist is something of a new arrival on the scene. Fortunately, there have been numerous individuals in the past who took the time to record their observations of the language. Mostly, their goal was to determine “what is right and wrong” rather than what is. Nevertheless, such observations can be quite useful. When a sixteenth century observer complains that people in London are no longer pronouncing their *<gh>*’s, this is a good sign that this sound is becoming silent.

2.5 Loan words

A fascinating – if rather unreliable source of preliterary words – is provided by loan words in other languages. In Latin, for example, there are numerous loan words from “Germanic” that indicate earlier stages of the language than are recorded in native-language documents. The interpretation of such sources is extremely difficult since the loan words are seen through the prism of foreign speakers. Latin scribes routinely transcribe Germanic */θ/* as *<t>* because */t/* was the closest sound in Latin to the original German. (Even today, Modern German changes */æ/* in English loan words like *Action, Handy* to */ɛ/* since */æ/* is lacking in German.) In addition, it is rarely possible to determine which Germans provided the loan word – West Germans, Goths, Vikings?

Perhaps the most interesting body of loan words is provided by ancient Germanic words in Finnish. These words preserve with great accuracy the reconstructed state of the Germanic vocabulary at a point in time of more than two thousand years ago. Consider the following. You can admire the obvious similarities or read the notes for details:

### Ger. Loan Words in Finnish

<table>
<thead>
<tr>
<th>Finnish</th>
<th>Ger./Eng.</th>
<th>Germanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>patja ’mattress’</td>
<td>Bett/bed</td>
<td>*badja</td>
</tr>
<tr>
<td>sairas ‘sick’</td>
<td>sehr/sore</td>
<td>*sairaz</td>
</tr>
<tr>
<td>kulta</td>
<td>Gold/gold</td>
<td>*gulda</td>
</tr>
<tr>
<td>kaunis ‘schön’</td>
<td>schön</td>
<td>*skausis</td>
</tr>
<tr>
<td>lammas</td>
<td>Lamm/lamb</td>
<td>*lambaz</td>
</tr>
<tr>
<td>rengas</td>
<td>Ring/ring</td>
<td>*hrengaz</td>
</tr>
<tr>
<td>kana</td>
<td>Hahn/hen</td>
<td>*hana</td>
</tr>
<tr>
<td>pelto</td>
<td>Feld/field</td>
<td>*feldo(m)</td>
</tr>
</tbody>
</table>
### Finnish

<table>
<thead>
<tr>
<th>Finnish</th>
<th>Ger./Eng.</th>
<th>Germanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>nauta ‘steer’</td>
<td>Genosse/steer</td>
<td>*nauta</td>
</tr>
<tr>
<td>kuningas</td>
<td>König/king</td>
<td>*kuningaz</td>
</tr>
<tr>
<td>murkina ‘food’</td>
<td>Morgen/morning</td>
<td>*murginaz</td>
</tr>
</tbody>
</table>

(The star (*) indicates a reconstructed form that is not actually attested)

**Notes:**

1. **patja**: Finn. *p,t,k* for Germ. *b,d,g* (cf. *kulta* ‘gold’). *j* causes umlaut to *e* and doubling of preceding consonant *dd > tt*.
2. **kulta**: Germanic ending *a < om* is preserved.
3. **skaunis**: Finn. drops the initial /s/ because /sk/ is not permissible in Finn. The original diphthong is preserved *au > o* (because of *i* of the following syllable - see below under umlaut).
4. **lammas**: The ending *-as* here is part of the stem (Germ. *lambaz*). The plural had the stem suffix *-iz* plus an ending. This yielded OHG *lembir* modern Lämmer. Note too, that *mb > mm* in both Finn. and Mod. German. Mod. English preserves *mb* in the spelling. See below under assimilation.
5. **hrengas**: An old word since the change *e > i* before *ng* has not yet taken place.
6. **kana**: Since Finn. has *k* this word may reflect a stage of Germanic preceding the first sound shift (p, t, k > f, th, ch(h)) This word is related to the Lat. verb *canare* ‘to sing’. The rooster is the morning singer!
7. **pelto**: *-o < -om* even older than the endings that reflect the common Germ. change *o > a*. The *p* may also antedate the shift from *p* to *f*.
8. **nauta**: An obsolete word for ‘a head of cattle’. Mod. German Genosse originally meant ‘cattle sharer’.
9. **murkina**: slang. ‘grub’, originally ‘breakfast’.

#### 2.5 Dialects

Even if we had no historical records of the Germanic languages, the existence of dialects would be enough to confirm language change.

Bavarian and Swabian are quite similar, but there are marked differences between them. The most likely explanation for this is that these two dialects were much more similar at a distant time in the past and have diverged over time.

The same principle can be applied to different “languages” like English and German or Spanish, Portuguese, French and Italian. Comparison of existing evidence from related languages or dialects can reveal the unrecorded past. (See below under the discussion of the comparative method.)

#### 2.6 Kinds of sound change

Another aid in reconstructing the past is our catalog of possible or likely sound changes. These sound changes are ones that have been observed in languages for which we have good historical records. They also make sense given the physical properties of the speech organs. A change from *t + vowel to m + vowel* is highly unlikely - if not impossible - since the two sounds /t/ and /m/ have nothing in common and the conditioning element (the following vowel) could hardly have caused the change. On the other hand, the change from *mb to mm* is well motivated. The two sounds are identical except for the feature of nasalization. Here, nasalization is simply extended to *b*. Such changes are frequent, cf. Germ. Lämmer, Eng. lamb, Finn. lammas. all from Germanic *lambaz-*/*lambiz*.

Armed with a “tool kit” of possible sound changes, we can go about reconstructing the past.

#### 2.7 Loss of sound

The simplest kind of sound change is perhaps loss of a sound. Compare the actual pronunciation of the English past tense forms: *liked, loved, wanted, loaded*.

The spelling *<-ed>* indicates that the ending should be pronounced *-/ed*/. In fact, this is only the case when the stem of the verb ends in *t,d*. In other cases, the vowel is lost and the stop takes its voicing from the final segment of the stem—a kind of “assimilation” (see below).
2.8 Addition of sound
Less common is the addition of a sound. Consider English moon, German Mond. In German the d was added. Compare too, English thunder and German Donner. Here, English has added the d. The same effect is noted in the romance languages. Where n and r come together in the future a d is added “to ease the transition”: Fr. venir ~ viendrai, Sp. venir ~ vendré.

2.9 Assimilation
Assimilation is the process by which a sound becomes more like (or identical to) another sound. The word assimilation is a good example of this process. It comes from Latin ad+similare. The voiced stop /d/ “assimilates” to the following voiceless fricative pronounced with the same tongue position. This is an instance of complete assimilation. Sometimes, assimilation is only partial (and may not be reflected in spelling at all). Consider, the pronunciation of input, usually /ɪn pyl/. Here, the nasal /n/ has remained nasal, but is pronounced /m/ with the stoppage at the lips as in the following /p/.

2.10 Dissimilation
This is the opposite process by which two similar sounds become less similar. For example, Sp. arbol < Lat. arbor, where the second r is dissimilated to an l. Sometimes, dissimilation leads to the complete loss of a repeated sound as in the American pronunciation of governor, where the first r is dropped although it is pronounced in governing, where no r follows. Apparently, this change cases the pronunciation — although not all sound changes simplify in this way.

2.11 Lengthening
Both vowels and consonants are affected by lengthening. In our discussion of vowel length above, we saw that English vowels are lengthened before voiced sounds. Vowels are typically lengthened in open syllables (syllables closed by a single consonant and followed by a vowel), as well, e.g.,

MHG wege /weːɡa/ --> NHG Wege /veːɡa/
from Old French *vel. In Modern French, rounding has taken place with subsequent loss of the /l/.

2.14 Unrounding

More important for the history of English is the opposite process —unrounding. Once upon a time, English had front rounded vowels like German. The equivalent of German <ü> was <y>. By the year 1000, these had become unrounded. This accounts for correspondencies between Modern English and Modern German like:

German English Old English
küssen kiss cyssan (\(<c> = /k/, <y> = /ü/>\)
füllen fill fyllan

Unrounding also occurs in German dialects like Bavarian. Compare: hören ~ heän, Küh~ kià. MHG diphthongs are also unrounded: brüeder (smoothed to Brüder in the standard language) becomes briàdà in Bavarian.

2.15 Retraction

Another, less common, way of resolving the “unnatural” front-rounded vowels (cf. discussion of the Cardinal Vowels) is retraction, i.e., rather than unrounding the lips, the tongue is pulled back. Compare Germ. schützen ‘protect’ with Eng. shut (earlier with the vowel of put). What would have resulted if standard English had chosen the unrounded form as is usual?

2.16 Metathesis

Metathesis is the name given to a change in which two neighboring sounds change place. Consider, WestGerm. *kros -> Eng. horse. The sounds /h/ and /o/ have changed place. In German, the initial /h/ was lost, producing: Ross.

2.17 Breaking

Breaking (also called diphthongization) involves the division of one vowel into two. Compare the pronunciation of Pete [piːt] and peal [piːl]. The following /l/ causes the /i/ to break into two parts: [iə].

The German Language – A Guide for Inquisitive Students

Historically, the long high vowels /u/ and /i/ broke into diphthongs /au/ and /ai/ independently in both English and German. Hence, we have mein and mine, Haus and house from earlier mīn and hūs inherited from “mother,” West Germanic.

2.18 Smoothing

The opposite effect is smoothing or monophthongization. Two vowels or rather a vowel plus a glide merge into one long vowel. In Southern American dialects, for example, /ai/ has smoothed to /aː/, so we hear /mam/ for mine.

Historically, OHG bruoder has become Bruder. Some of the modern dialects (cf. Bavarian bruadà) have not participated in this change. Similarly, the spelling <ie> for the tense vowel /i/ in German is a result of smoothing. In MHG <ie> was pronounced as a diphthong - hence the spelling. In the standard language, smoothing took place, but the old spelling was retained.

2.19 Umlaut

Umlaut is the change in the quality of a vowel caused by a vowel in a following syllable. In the history of English and German /i/-umlaut has played a major role. Here an /i/ or /j/ or the following syllable attracts a preceding vowel causing raising and fronting. This accounts for alternations like Gast - Gäste, OHG gast - gesti. There is no umlaut in Arm - Arme because the historical form was arm - arma. Compare also Gothic fulljan and German füllen. The back, rounded vowel /au/ is pulled forward by the /j/ of the following syllable, resulting in a front rounded vowel.

2.20 Ablaut

Ablaut is a regular alternation of vowels under conditions unknown (i.e., a kind of umlaut for which we have no explanation). Ablaut plays an important role in the Indo-European languages, especially in the verb tense system in the Germanic languages. German has preserved the vowel changes quite faithfully. In English, the system has largely crumbled, leaving behind “irregular verbs.”
Note that the Germanic verb used to have four principal parts instead of three as today. In German, the vowel of the past singular was generalized to the plural in this particular case. (Here no sound change is involved. We simply have a reduction in the number of forms.)

In German all strong verbs with r, l-consonant maintain this pattern (e.g., werfen, sterben, helfen, gelten, etc.).

As for the original cause of the ablaut, the zero grade (no vowel at all) in the past plural and past participle would seem to result from the shift of the accent to the ending. Unaccented vowels tend to be reduced.

Many consonant clusters are the result of the loss of a syllable due to the zero-grade: *ber- ~ *br as in bear ~ brown. The original Indo-European word for “bear” (cf. Grk. arktos, Lat. ursus) was probably taboo among the Germanic peoples, so they substituted euphemism “the brown one”. Other examples: Lat. genu ~ Ger. Knie, ‘knee’, PIE *sed- ‘sit’ ~ *ni-zd-ós, ‘nest’ (< ni-sd-ós) literally ‘place to sit down’. PG *beran ‘bear, carry’ ~ *bringan ‘bring’.

The change from e to o has not been adequately explained, but most researchers believe that ablauting-o was ultimately derived from e under circumstances that cannot be reconstructed with certainty. Perhaps, accent shift was also involved here, cf. Ital. débo ‘I must’ ~ dobbiámo ‘we must’. In Italian, e > o when unaccented and followed by a lip-rounded consonant.

In addition to the e-grade, o-grade and zero grade, there was a lengthened grade as in the past pl. of OHG lesun ~ las ~ lásun ~ gelesan. Sometimes the lengthened grade is clearly due to compensatory lengthening after loss of a following consonant. In PIE the nominative singular ending of masculine and feminine nouns was -s (cf. Lat. nos < noct+s ‘night’), after final r, however, the ending was lost with lengthening of the preceding vowel: Gk paíē < PIE *paters.

Another kind of lengthening was caused by the coalescence of two vowels as in our OHG example above. Presumably, *leÖsum > *lësum > *lësm. This form originally showed “reduplication,” the repetition of the first stem consonant plus e, which has disappeared everywhere in Germanic except in Gothic. (see below under the discussion of the verbs). Finally there are lengthened grades for which no lengthening process can be determined – originally long vowels as in Lat. rēx < rēg + *s ‘king’, where the ending -s has not been lost, but the stem vowel is nevertheless long.

To complicate things further, we have to assume two different types of long vowels – at least in final syllables. Compare Gr. steīzō ~ OHG steicus ‘ich steige’ with OHG tagō < a + om (gen. pl.) ‘der Tage’. Most authorities assume a difference in accent here. In any case, overly long vowels as in OHG tagō seem to be the product of coalescence of two vowels as in our example above or else of compensatory lengthening, e.g., Goth. gibōs, OHG geba < -āso. See also the Appendix on “Mysterious-h.”

### 2.21 Vowel harmony

Vowel harmony is a kind of assimilation at a distance that specifies that vowels of successive syllables must be alike in some way. This principle is quite pervasive in Finnish, Hungarian and Turkish. For example, the plural suffix in Turkish is -ler/-lar. Somewhat oversimplifying things, we can say that -ler occurs after high and middle vowels and -lar after low vowels. Hence, the plural of ev ‘house’ is evler and the plural of adam ‘man’ is adamlar.

In Germanic, at an early stage (before i/j-umlaut), e was raised to i before a high vowel (i, u) of the following syllable and u was lowered to o if an a followed. Similarly, i and u were lowered to e,o before a of the following syllable. Compare Lat. vir ‘man’ with Eng. Wer(wulf) < *weraz. Similarly, Eng. middle ~ Lat. mediis. This alternation is also observed in German pairs like Erde ~ irdisch, Gold ~ gülden, Tor ~ Türe, voll ~ Fülle. In the cases with umlaut, the original vowel was first raised then fronted. Thus, from the noun *goldam, the adjective *guldin was formed (vowel harmony), which later became güldin (i/j-umlaut) and then, after the weakening of final inflection syllables, modern, somewhat archaic, gülden, cf. Mod. Eng. gilded ‘gold plated’
with unrounding. The preposition pair: \(\text{fü r} \sim \text{vor}\) from OHG *furī ~ fora* also belongs here.

### 2.22 Laxing

Laxing (or lenition) involves substituting a sound which requires less muscle tension than the one it replaces. If we can follow developments long enough (as with Latin and its children), we can sometimes observe a change from a tense consonant to a lax consonant to a fricative to zero:

\[
\text{amat us} \rightarrow \text{amado} \rightarrow \text{amaðo} \rightarrow \text{amao}
\]

Latin *amat us*, ‘loved’, becomes older Spanish *amado*, modern Spanish, pronounced *amaðo*, Portuguese *am ao*.

A similar development occurs in German, where a stop becomes an affricate or a fricative. Compare *heart ~ Herz*, *water ~ Wasser*, where the original stop (as in English) has become an affricate or a fricative in German, depending on position. In fact, all the voiceless stops /p,t,k/ have laxed to affricates or fricatives. cf. *pepper ~ Pfeffer*, *foot ~ Fuß*, *make ~ machen*.

### 2.23 Tensing

Tensing, the opposite development is much rarer, but occurs in the history of German. Compare:

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>live</td>
<td>leben</td>
<td>seven</td>
<td>sieben</td>
</tr>
<tr>
<td>bathe</td>
<td>baden</td>
<td>path</td>
<td>Pfad</td>
</tr>
</tbody>
</table>

The English forms with fricatives are older than the German forms with stops. Thus, in German, the voiceless stops have laxed (see previous section) and the voiced fricatives have tensed!

### 2.24 Palatalization

Compare the pronunciation of German *Kuh* and *Kind*. We regard these as the same sound and write them with the same letter although the stop

\[\text{The German Language – A Guide for Inquisitive Students}\]

...is formed at the back of the mouth for *Kuh* and at the front, on the hard palate, for *Kind*. In English, this palatal-\(k\) (before e,i) became /ʃ/. Compare:

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinn</td>
<td>chin</td>
</tr>
<tr>
<td>Käse</td>
<td>cheese</td>
</tr>
<tr>
<td>küs sen</td>
<td>kiss</td>
</tr>
</tbody>
</table>

It is easy to “get the feeling” of this sound change. Just pronounce *Kinn* and *chin* while paying attention to the position of the tongue. It is virtually identical except for the slow release in English, which produces the affricate. There is no palatalization in *kiss* because, as the comparison to German shows, the vowel was originally rounded (OE *cyssan*). The front rounded vowel /y/ pushes the tongue down off the palate (try *Kinn ~ Kühn*). Hence, there is no affricate in English. Later, /y/ unrounds to /i/, but the new /i/ does not cause affrication. See below under “Limited time for application.”

### 2.25 Nasalization

Nasalization of vowels does not play a significant role in the history of English or German, but is worth mentioning here as it does effect other common languages like French and Portuguese. Compare the pronunciation of French *bon* /bɔ̃/ ‘good’ masc. with *bonne* /bɔ̃n/ ‘good’ fem. In the masc. form, the unprotected *n* has disappeared after lending its nasal value to the preceding vowel. This vowel is pronounced with open mouth and open nasal passage so that the air exits simultaneously through the nose and mouth. Presumably, the long vowels produced by the disappearance of *n* before fricatives (see above) originally produced nasal vowels which subsequently denasalized. Modern Bavarian has nasalized vowels (e.g., [iːkʊ] ‘ich kann’, but [deːs kʊn ɪ] ‘das kann ich’), where the following enclitic pronoun has preserved the original nasal.

### 2.26 How does sound change take place?

There have been many ingenious attempts to explain sound change as result of internal developments within the sound system of the language involved. While these cannot be entirely discounted, they have, on the whole, been less than convincing.
It seems better to regard sound change as random within the confines of what is likely to happen in the mouth. For example, the change from /t/ to /d/ between vowels (laxing) is likely, whereas a change from /t/ to /m/ is highly unlikely.

At first, both the original and the shifted form exist side by side. Whether or not such a sound change becomes established probably depends on social factors. If a particular change becomes a popular, “prestige” feature, it will replace the earlier form. If not, it will disappear.

For example, so-called r-dropping as in British /bɪə/ or German /bɪə/ ‘beer’ is also found on the east coast of North America. In England and Germany, r-dropping has become a “prestige” feature and has virtually replaced forms with a final r. Here we can speak of a sound change. In North America, however, r-dropping is considered “vulgar” and is slowly disappearing.

Unfortunately, there is no way of knowing what social factors influenced most of the sound changes we observe in history. That is, we have no idea why the High Germans, who shifted /t/ to /ss/ after a vowel (or between vowels), should have preferred was to wat or wasser to water. And pending the invention of a time machine, we never will.

### 2.27 Is sound change regular?

Despite heated controversy in the nineteenth century, it seems beyond doubt that sound change is regular. That is, a change like /l/ → /ss/ occurs not just in individual words, but uniformly across the vocabulary. The reason for this is not hard to see. Sound change reflects the more or less unconscious change in the pronunciation of individual sounds or groups of sounds, not words. The High Germans who said wasser (for water) also said besser for better because they changed the pronunciation of t between vowels, not the pronunciation of these words.

Apparent exceptions can be explained away – given that we know enough about the external history of the language and the people who spoke it. For example, on the basis of English boat, we should expect a High German form ending in ss. In fact, we find Boot with unshifted t. Fortunately, we know that the Low Germans, who lived along the North Sea excelled in seafaring. In Low German, this shift of t to ss did not take place (NHG Wasser ~ Du. water). The word Boot, as it turns out, was a loan word from Low German that first appeared in High German in the fourteenth century. It is not part of the ancient inherited vocabulary like Fuß and did not participate in the High German sound shift. Here the unusual spelling of /ø/ is also a clue. High German usually spells this sound as <ö> as in Bote or <oh> as in Bohne. The spelling <œ> is typical of Low German.

Another instructive example is the unusual English pair: fox ~ vixen. The parallel to German: Fuchs ~ Füchsin is obvious. The /t/ in vixen is easily explained. It results from the general unrounding of /y/ reflected in küssen ~ kiss. Similarly, the suffix -en used to form the feminine derivative (as in German Lehrer ~ Lehrerin) is understandable through comparison with German – although fox ~ vixen is the only surviving pair of this kind in English. The change in the initial consonant /ŋ/ ~ /n/ is mysterious and certainly not part of any general process. There is a parallel between German Fass and English vat and Fahne ~ (weather)vane, but no general correspondence /ŋ/ ~ /n/ between German and English.

Fortunately, we know that south of the Thames (and particularly in the southwest of England) initial voiceless fricatives (ʃ, ʒ, s) spontaneously voiced. These three dialect words: vixen, vat, vane have become part of the Anglo-American standard for reasons unknown. Suffice it to say that, without extensive knowledge of related languages and British dialects, they would remain unexplained “exceptions.”

A note on “Vogel-V”: The spontaneous voicing of initial ʃ, ʒ, s south of the Thames is also the source of the voiced th in words like: the, that, this, though, etc. If we assume that something similar happened in the German dialects, we can explain three sound changes at once. Assuming that such a change occurred in the course of the tenth century, we have the sources of the northern (and standard) pronunciation of initial s as voiced [z] in words like singen, sagen, etc. We can also assume that initial þ first voiced to ð before becoming a stop d as in dick ‘thick’ and dünn ‘thin’. Initial f > v as is reflected in the spelling <œ> which originates in early Middle High German. Later, v > f again as in Dutch voox ‘fox’, where it is retained in the spelling. We can assume this sound was labio-dental on the evidence of the other Germanic dialects.

Perhaps the best argument against “exceptions” is that sound change that spread from word to word and skipped a few in the process would be expected to leave behind all sorts of debris, that is, isolated
words that contain sounds that have otherwise disappeared from the phonological system of the language in question.

Consider, for example, the common Berlin affectation of pronouncing das, was as /dat/, /vat/ although other words with historical final t are pronounced with /s/ (e.g., Faß, Graß, muss). If these words were really exceptions to regular sound change we might expect /0at/, /wat/ (cf. English that, what). But, we never find isolated instances of /0/ and /w/ in German. These sounds have completely disappeared from the language and are not preserved in “exceptions” from sound change. The final /u/ (from /d/ as in Bett ~ bed) is, however, alive and well.

Where then do the exceptional dat and wat come from?

A glance at the dialect map (in the Appendix) provides an answer to the mystery. Berlin is positioned at the edge of the border between High and Low German. The exceptional forms dat, wat were simply borrowed from the north or the “simple folk” in the city, who held on to the Low German tradition. The “exceptions” dat, wat have become a symbol of Berlin identification. If they were really an exception to the sound change of /t/ to /ss/ we would expect to find similar exceptions in other places far from Low German territory – which is not the case.

The major source of apparent exceptions to regular sound change is the restructuring caused by analogy (see below).

2.28 Standard languages

From the considerations above, it should be clear that the standard languages – British Received Standard, American and German Network are “messy.” That is, none of these standard literary languages is a “pure” development from an earlier stage of the language, but all involve an admixture of features from competing dialects. Both the British and American standards go back to a common eighteenth century upper-class standard based in London – but this standard incorporates dialect forms like vixen, vat, vane that are quite foreign to London. In addition, we have contrasts like good ~ food, which cannot be explained by regular development. Here we have an arbitrary choice in the “prestige dialect” among available dialect forms. “I say /tomaisou/, she says /tomaisou/ – let’s call the whole thing off.”

The German standard, based on a spelling pronunciation of Middle Saxon (Martin-Luther German), is far less messy than the English standards. A German pronouncing dictionary for native words is a waste of money. In the new orthography: (e.g., Fuß ~ Fluss) the pronunciation can be read off the standard spelling. An English dictionary routinely lists two to four different pronunciations for some words because of dialect mixing. Consider common cases like the pronunciation of either, again, been. (A list of such cases is to be found in my book The American Language.)

2.29 Limited time for application

Implicit in what was said about exceptions above, is the principle that sound changes like physical forces only apply for a limited period of time. Then, like the ripples in a pond caused by tossing in a stone, they die out. Thus, when the sound change from /t/ to /ss/ was underway in High German, all final and intervocalic /s/’s were swept away. The same wave partially shifted /t/ to /ts/ when doubled as in sitzen (< sittian) or when /t/ was initial (as in Zug, cf. Eng. tug) or when /t/ followed a liquid or nasal (Herz ~ heart, Lenz ~ lent).

For a time then, High German had no sound /t/! Later, /d/ shifted to /t/ as in (Tag ~ day, tot ~ dead), filling the hole in the system. After this development had taken place, there was no difficulty in borrowing Low German boot.

Caveat lector ‘reader beware’: For many students of the subject, the assertion that there could have been a voiced stop /d/ without a corresponding voiceless stop /t/ is unacceptable on the presumed grounds that no language can have voiced stops without corresponding voiceless stops. There are any number of ways that this objection can be met. Are we talking about voicing or tensing? Could the shifts have taken place in tandem (/d/ > /t/ at the same time that /t/ > /ss/ ~ /ts/)? At the end of the day, what needs to be explained is how /d/ > /t/ and /t/ > /ts/ ~ /ss/ without the two sounds falling together.

2.30 Analogy

Analogy or “Systemzwang” is the principal force that eliminates the effects of sound change and creates apparent exceptions to regular changes.

As mentioned above, in the history of German, there was a process that lengthened vowels in open syllables (syllables with a single
consonant followed by another vowel) or before a voiced consonant.

Consider the paradigm of Middle High German wec ‘Weg’ (with a short vowel throughout, /wek/, wege/s/):

<table>
<thead>
<tr>
<th></th>
<th>sing.</th>
<th>plur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.</td>
<td>wec</td>
<td>wege</td>
</tr>
<tr>
<td>gen.</td>
<td>weges</td>
<td>wege</td>
</tr>
<tr>
<td>dat.</td>
<td>wege</td>
<td>wegen</td>
</tr>
<tr>
<td>acc.</td>
<td>wec</td>
<td>wege</td>
</tr>
</tbody>
</table>

Six of the eight forms in the paradigm have open syllables with voiced consonants (wec, weges, wegen) which were lengthened according to the rule. The two remaining forms, the nominative and accusative singular (wec), should have kept a short stem vowel because no vowel follows to open the syllable. In fact, all eight forms (not just the six regular ones) have long vowels in Modern German. The reason for this is that the six regular long-vowel forms exerted pressure on the other two. Note that the adverb weg (as in ich gehe weg) retains the short vowel because it was not regarded as part of the paradigm and was thus not obliged to conform.

Another example of “Systemzwang” is the local name of the popular Munich Oktoberfest: “die Wies’n”. The name comes from the Teresienwiese, where the festival is held, but where does the final n come from? In standard German, we have die Wiese, sg. and die Wiesen, pl. Die Wies’n is, however, clearly a singular form.

The answer is that in earlier German so-called feminine n-stems like zunge, wise, declined like the modern masculine der Bote, des Boten . . . die Boten, etc. That is, only the nom. sg. had -e, all other forms of the singular and plural had -en. In Bavarian, the seven other forms in -n forced an n on the nom. sg. as well. In standard German, on the other hand, n was restricted to the plural.

The n-stems are instructive in another way. Since most words that ended in -e were feminine (cf. die Gabe, die Stunde, etc.), most masculine n-stems either changed their gender: MHG der sonne becomes NHG die Sonne, similarly fahne, niere, schlanke, schnecke, etc., or generalized the n as well: MHG der garte > NHG Garten. Only those n-stems that denoted clearly masculine individuals (bote, knabe, bube, etc.) retained their gender and the old declension. (For more about this, see the discussion of the n-stems below.)

2.31 Ousting

There are a number of changes in the standard languages that cannot be explained by normal sound change. For example, in English, <er> at the end of a word or before a consonant was pronounced by the British upperclass as /ər/ in words like servant up till the middle of the eighteenth century. After mid-century, a growing interest in “correctness” led to the adoption of /ɜːr/ where the common spelling was <er> (e.g., servant, merchant). Where the spelling was <ar> or the ambiguous <ear>, the old pronunciation remained. Consider the following pairs, where German illustrates the original vowel: fern ~ far, Herz ~ heart. Remaining are a number of doublets like person ~ parson, Berkeley ~ Barclay, vermin ~ varmint, university ~ varsity, etc. This is an instance of so-called spelling pronunciation. If sound change had been involved, we would expect that all instances of /ar/ would have shifted to /ɜːr/ - regardless of spelling.

In German there are current examples of ousting in progress: In Bavaria, the tongue-trilled-r is being ousted from its traditional stronghold by the “modern” uvular-r as heard on radio and television. Similarly, the pronunciation [ç] for <ch> following the liquid -r as in durch is ousting the traditional [x]. Ousting is not sound change, but a result of competition between divergent standards.

Admittedly, it is often difficult to distinguish between sound change and ousting. The English example cited above is clear, because spelling pronunciation is involved. The Bavarian examples we have cited are not so unambiguous. We can observe current social pressures that further these changes, but lacking sociological data, can we really be sure that other sound changes were not really instances of ousting? Perhaps geography is the determining factor. If we can show that uvular-r is spreading south, sound change is the cause. If the uvular-r is conquering the entire Bavarian region regardless of geography and dependent on the age of the speaker, then ousting is the cause.
2.32 Substitution through borrowing

Another process that looks like sound change, but isn’t, is substitution through borrowing. Consider the German word Handy ‘cell phone’. It is borrowed from the English adjective handy.

The English original has the vowel /æ/. Since this low front vowel is not part of the German inventory sounds, it is represented by the nearest native sound in German: /ɛ/. If we were not familiar with the details, we might be tempted to posit a sound change here. Fortunately, we know that the ancestors of modern-day English and German speakers did not have cell phones so the borrowing must be modern and the difference in the vowel due to substitution.

Another, historical, example is the Romance word French guerre, Spanish guerra ‘war’. The resemblance to the English gloss is not coincidental. The word is apparently derived from Germanic *werre (cf. German wirr, Wirrwar ‘confusion’). Romance did not have the sound /w/ and speakers of French and Spanish substituted /gw/. Even today, the name William becomes Gwilliam in the mouths of Spanish speakers (cf. French Guillaume). To be absolutely sure, we have to seek pairs that work in both directions, see below.

2.33 Functional explanation

At first glance functional explanation seems similar to analogy. Both try to explain apparent exceptions to regular development in the linguistic system. Analogy, however, concentrates on the system itself and appeals to “Systemzwang,” pressures within the system that tend to eliminate irregularities. We have seen a number of examples above.

Functional explanation, on the other hand, appeals to external influences such as the need to facilitate communication to explain how irregularities arise. A famous example is the Slavic genitive-accusative.

2.33.1 The Slavic genitive-accusative

In the Slavic languages from earliest times, we observe a strange peculiarity in the declension of masculine o-stems. While the direct objects of inanimates are, as expected, in the accusative, the direct objects of animates appear in the genitive. Consider the following examples from modern Russian:

(1) a. Pavel vidjet stul (acc.). ‘Pavel sees the chair’.
   b. Stul vidjet Pavel (nom). ‘Pavel sees the chair’.

(2) a. Pavel vidjet Ivana (gen) ‘Pavel sees Ivan’.
   b. Ivana vidjet Pavel (nom) ‘Pavel sees Ivan’.

Historically, the nominative and accusative o-stem endings -os, om (cf. Lat. servus ~ servum ‘slave’) fall together into -ū > θ and are thus identical. In addition, word order in the Slavic languages is quite free as can be seen in the examples above. In cases like (1), this causes no problems of interpretation despite the identical marking of subject and object. Since chairs cannot see, only one logical possibility arises: ‘Pavel sees the chair’.

In (2), however, both Pavel and Ivan are animate and able to see. Hence, if there were no distinctive case marking on the object, either interpretation: ‘Pavel sees Ivan’ or ‘Ivan sees Pavel’ might arise. For this reason, the genitive is substituted for the historical accusative in cases like (2). Later, this pattern is extended by analogy to declensions where it is not strictly necessary. The details differ depending on the language in question.

2.33.2 English word order

A similar principle could and, in fact, has been invoked for the fixing of English word order. Since English has also lost accusative case marking, the subject has to come first in order to prevent confusion as might arise in cases like (2 a,b) in the preceding section. This is, of course, a different device than marking the animate object with the genitive case, but it accomplishes the same ends (fulfills the same function) – making it easier to distinguish between subject and object in potentially ambiguous cases.

The difficulty becomes apparent when we broaden our view to other languages where the same problem arises. In German, nominative and accusative are distinguished only in one of four possible cases – masculine singular (der ~ den). The feminine and neuter singular and all plurals have identical forms for the nominative and accusative. Thus, we have:
(1)  a. Der Vater sieht den Sohn. ‘The father sees the son’.
    b. Den Sohn sieht der Vater. ‘The son sees the father’.

(2)  a. Die Mutter sieht das Kind. ‘The mother sees the child’.
    b. Die Mutter sieht das Kind. ‘The child sees the mother’.

In other Germanic languages like Dutch there is no case marking at all so (1) would be ambiguous as well: *de vader ziet de zoon/de zoon ziet de vader*. Evidently, there is no general abhorrence of subject-object ambiguity – which is not surprising since subject-object relations in sentences like those above are almost always made clear by context.

These observations do not totally invalidate the argument, but they do make it far less persuasive. The real difficulty lies with the scope of functional explanation. With analogy, we have a rather narrow and universal scope of argumentation. Analogy only claims to reduce the irregularity within a system (paradigm). If Ger. *der Mittwoch* ‘Wednesday’ is masculine despite *die Woche*, then only because the other six days of the week, which are compounded with *der Tag*, are masculine. There is no conceivable communicative advantage to changing the gender of Wednesday. It just simplifies matters – by analogy. Functional explanation invokes causes – like avoidance of subject-object ambiguity – that are in no way as universal as simplification within a system.

Although analogy is certainly open to dubious application (misuse), there is at least a clear standard. Do you think the change from MHG *ich nimme* to NHG *ich nehme* is due to analogy to the plural *wir nehmen* or is this an explanation *faute de mieux* (for lack of anything better)? It depends on whether you think the systematic pressure exerted by the plural form could really force such a change – and whether you can produce parallel developments from German or other languages.

In cases like the Slavic genitive for accusative the explanation seems oddly *ad hoc* (devised for the particular end or case at hand without consideration of wider application). Certainly, the Germanic languages have no scruples about leveling the distinction between accusative and nominative. This is a direct counter-example to the functional explanation. To be sure, analogy does not apply everywhere that it possibly could either, but where it does apply, there is no other explanation except ‘Systemzwang’ – analogy is convincing because it is *not* functional.

### 2.33.3 Alternative explanation

The contrast between English and Dutch is also instructive. The object first construction in Dutch is simply a consequence of the V-II Rule (see chapter on syntax). This rule allows any verb phrase constituent to be fronted with subsequent inversion of subject and verb so that the verb is always second. Thus, for the sentence: *Jan bracht de brief gisteren naar de post* ‘Jan brought the letter to the post office yesterday’, we have the following possibilities (verb in second position):

(1)  a. Jan *bracht* de brief gisteren naar de post.
    b. [De brief] *bracht* Jan gisteren naar de post.
    c. [Gisteren] *bracht* Jan de brief naar de post.
    d. [Naar de post] *bracht* Jan gisteren de brief.

The case in point (1b), where the object comes first, is simply a consequence of the general rule. English has simply lost the V-II rule so that (1b-d) are all impossible although only (1b) is potentially offensive.

Note that English too had the V-II Rule, which survives in limited environments. It is still obligatory if a negative heads the sentence with a compound verb: *Never have I seen such a mess!* or *Never saw I such a mess*.

Nevertheless, functional explanations cannot be ruled out entirely. Consider the case of the German *o*-stem neuters. Due to regular sound change, the nominative and accusative lost their endings and fell...
together in the singular and plural in words like *wort* ‘word’, *bröt* ‘loaf’, *här* ‘hair’, *jäh* ‘year’. In Middle High German, many of these words then borrowed the plural form from the masculine *o*-stems, which regularly retained the plural ending -e. Thus, *worte*, *bröte*, *häre*, *järe*. Others took the plural from the *s*-stems like *lämm* ~ *lämmer* ‘lamb’. Thus, *blatt* ~ *blätter* ‘leaf’, *grab* ~ *gräber* ‘grave’, etc. One word takes both forms with a difference in meaning in the modern language: *Worte* ‘connected text’, *Wörter* ‘individual words’.

Here, analogy plays a crucial role in that it supplies a model for the new, ahistorical plural forms, but one might certainly argue that there was a functional component – the need to have a separate plural form. This view is perhaps supported by the observation that the old plural is still found after numbers, where there is no need for a distinct plural marker: *drei Glas Bier* ‘three glasses of beer’, *vier Stück Kuchen* ‘four pieces of cake’.

On the other hand, we could argue that analogy rather than functionality is behind the creation of a new plural as well. Most (but not all) one-syllable German nouns have a separate plural form so the neuter *o*-stems are under pressure to comply as well.

An instructive case here is *der Euro ~ die Euro(s)*. The gender is masculine in analogy to other currencies (*Gulden, Franken, Dollar*). The plural is either in -s thanks to the analogy mentioned above or unmarked thanks to the lasting influence of *die Mark ~ die Mark*. (See discussion of gender below.)

### 2.34 Language mixture

Language mixture arises in situations of conquest. Recall that the language of Gaul before the efforts of Julius Caesar was Gaulish. After the Roman conquest, the Gauls, over a period of centuries, adopted the Latin language. Continental Celtic disappeared almost without a trace, but undoubtedly left its mark on the pronunciation and other aspects of Gaulish Latin. The result is modern French – which is rather different from Italian or Spanish in its sound structure.

The sociological factors influencing language mixture are complex and poorly documented. It is difficult to say why Roman conquerors were able to impose their language on the Gauls, but German conquerors (Normans, Franks, Burgundians) gave up their languages in favor of the Proto-Romance of the conquered. We can only look for modern parallels and assume that what happened in the past is much like what happens today. Here we will concentrate on the linguistic rather than the sociological aspects of the problem.

Cursory observation of the problems of adult language learners indicate that the native language imposes itself, as we might expect, on the foreign language. Speakers of highly inflected Slavic languages, for example, have little trouble learning the far simpler German inflectional patterns. Not so for speakers of sparsely inflected languages like English.

Similarly, speakers of Spanish with its five vowel system and syllable timing have the work cut out for them when they try to master English with its stress timing and eighteen vowels organized in tense and lax pairs. The result, on a massive scale, as in the south west of the United States is a typical “Latino” accent. This phenomenon may be limited to each new generation of adult learners since children have adequate English models through school, radio, television, etc., and tend to grow up bilingual or to reject Spanish as marginal in importance.

In ancient Gaul, there were no mass media projecting the Latin standard and most of the Romans the Gauls came in contact with did not speak that standard anyway, but rather the Vulgar (popular) Latin of the mass of the people. Without the corrective influence of a standard, Latin with a Gaulish accent drifted off into a new language that we now call French. In other parts of the empire, the Latin language fell upon different substrates (indigenous languages), which accounts for many of the differences between Romance languages.

In modern Germany, where English plays a pervasive role in education, science, commerce and industry, we can see a similar phenomenon emerging. Many speakers can comprehend standard English and express themselves adequately in spoken English without mastery of the complex English tense and aspect system. Why make things more complicated then they are in German? If left unchecked, this would lead in time to a distinctive variety of “German-English.” The situation in other countries of Europe is no different so that, in the absence of controls (fall of the Roman Empire), continental English could well splinter as did Vulgar Latin before it.
3 Semantic change

The comparative enterprise cannot thrive without considering change in meaning as well. With words like father ~ Vater ~ pater, we are on safe ground. There can be little doubt that these are “cognates,” (from co-grnatus, words born from the same mother). But, not all cases are so clear. Are Mod. Engl. smart, Germ. Schmerz ‘pain’ related like heart and Herz?

In any case, we do have to be reasonably sure that we are comparing apples with apples and not with oranges in order to establish sound correspondencies. An attempt to establish sound shifts on the basis of false comparisons must inevitably lead to disaster.

The answer here is yes. After all, there is an English verb to smart, which means to experience a burning pain. Perhaps, smart in the meaning ‘intelligent’ comes from the burning pain one experiences when one is “outsmaerted.” There is a transfer of meaning from ‘pain’ to someone who is capable of causing pain through intelligence.

3.1 Types of semantic change

Just as we were able to establish a catalog of types of sound changes, we can attempt to create a similar catalog for semantic change.

The differences should be clear: sound change is constrained by what can happen in the mouth plus auditory factors and analogy. Meaning change is much more difficult to pin down. Nevertheless, we can list some of the most common kinds of semantic change with examples. Just as we observed opposites in sound change, we can also point to opposites in meaning change.

3.1.1 Narrowing

Very often the meaning of a word is restricted from the general to the specific. Consider Ger. Tier ~ Eng. deer. The original meaning ‘beast’ is reduced to a particular kind of forest-dwelling ruminant (Bambi and friends). Similarly, Ger. sterben ‘to die’ corresponds to Eng. strave ‘to die of hunger’. O.E. sweltean ‘to die’ gives us Eng. swelter ‘to suffer or die from excess heat’. MHG urlop ‘permission’, now only Urslaub ‘vacation’. In British English outhouse means a ‘small building which is near to and belongs to a larger main building’ in American, it refers only to an outdoor toilette!

3.1.2 Broadening

Broadening is the opposite process. A word of restricted meaning becomes more general. Lat. virūs ‘manly quality’ (< vir ‘man’) ~ Mod. Eng. virtue (via French) ‘any good quality’. Finn. viina is clearly borrowed from Lat. vīna ‘wine’, but now refers to any alcoholic beverage. Germ. Geschwister originally only ‘sisters’, now ‘siblings’.

3.1.3 Elevation

Elevation means making a term more socially acceptable than it was before. O.E. cniht ‘boy, servant’ > Mod. Eng. knight. (cf. Germ. Knecht). O.E. cwēn ‘woman’ ~ Mod. Eng. queen. There can be little doubt that the original meaning here was ‘woman’, cf. Grk γυνή ‘woman’ as in gynecologist ‘women’s doctor’. Most likely, würmann ‘wife-man’ replaced the other term in the common meaning ‘woman’ and freed it for social climbing.

3.1.4 Denigration


3.1.5 Transfer

Often a word is “reassigned” to a closely related concept. Thus, Lat. penna ‘feather’ becomes Eng. pen ‘a writing implement’ because
feathers used to be used for writing before there were computers. Perhaps, we can add Ger. zählen ‘count’ and Eng. tell ‘recount’ (with the original meaning in tell one’s beads ‘count one’s prayers with the rosary’). There are some less obvious transfers that are generally accepted. An interesting one is IE *sal(d)- ‘salt’, which appears with the familiar meaning in Germanic, Greek, Latin, Armenian and Old Prussian, but is also confirmed (according to well-established laws of sound change) in Lith. saldis and Russ. sladkij, which mean ‘sweet’!

Russian also has sol’ ‘salt’ without the -d extension and Latvian, Lithuanian’s only surviving sister, has both forms of the root, reflected in sāl ‘salt’, salds ‘sweet’. A similar transfer is seen in Gk. typhlos ‘blind’ ~ Ger. taub ‘deaf’.

### 3.1.6 Hyperbole

Hyperbole is exaggeration, from that was terrifying real (I was terrified) to that was terribly good (no terror involved). Germ. sehr gut from sehr ‘painful’ (cf. King James Bible, they were sore afraid) belongs here too. Consider too: I will crucify you! where nailing someone to the cross is not really meant.

### 3.1.7 Litotes

Litotes is the opposite of hyperbole. Here, a weaker meaning is strengthened. Consider Germ. quälen ‘torture, torment’ and O.E. cwe llan ‘to kill’, even now to quell (‘put down’) a rebellion.

### 3.1.8 Metaphor

Metaphor can be virtually anything. It simply indicates the use of a word for something vaguely similar, i.e., the mouth of a river, the point of an argument, boiling with rage. We find very interesting correspondencies between languages here. Consider Ger. die Mundung eines Flusses, der springende Punkt des Arguments, kochend vor Wut.

### 3.2 The etymologist’s method

If you ask a student (or other rational person) what English word is related to Germ. Vogel, the first reaction is invariably bird although these words can’t possibly be related by regular sound change. The problem is that normal people almost invariably try to cross the bridge of meaning in identifying cognates. Given what we have considered above, this is clearly the wrong way to go about it. Sound change is limited mostly to the kind of things that can happen in the mouth when we speak. Meaning change is not unlimited, but considerably more complex and unpredictable. Thus, the surer way is to proceed from form to meaning.

Let us first consider the example above. Germ. v/f at the beginning of a word always corresponds to Eng. f (cf. Vater ~ father, Fuß ~ foot). Germ. l always corresponds to Eng. l. Now we have something like a crossword puzzle or a Scrabble game. You get fifty points for figuring out what comes between f and l. Now, there is a sound law that says that OE g becomes the back glide w after back vowels (cf. Bogen ~ bow). Hence, we would expect the related word in English (cognate) to be something like fowl, assuming that there is such an English word at all.

Check the English dictionary and you will find that there is a word fowl meaning a bird used for food (narrowing). Could this have something to do with Ger. fliegen, Geflügel ‘poultry’?

Let us consider a more complex case – English kitchen. What would the German cognate look like (assuming one exists)? Let’s start with the first vowel i. This can have two sources, i or y (high front vowel unrounded or rounded). Since the preceding consonant is k, i must come from y. Otherwise, k would have been palatalized as in Eng. chin ~ Germ. Kinn. The source of y must be i/j-umlaut, so we must posit an i in the following syllable. This is supported by the affricate /tʃ/, which, as we have pointed out comes from the palatalization of a k before i. Since the n is normally stable, we arrive at the reconstruction *kukin.

Taking *kukin as our starting point, we can use regular sound laws to derived the expected German form. In German, we have umlaut and subsequent weakening of the unaccented i just as in English, only, the umlauted vowel survives to this day as ii. Between vowels, k becomes a fricative through the High German sound shift (cf. Eng. make ~ Germ. machen). Our result is thus *küchen. Indeed, there is a German word Küche that means ‘kitchen’ so we only have to explain the missing final n in order to have a perfect match. Here, we need an assist from analogy. Since, Küche is feminine, it has apparently joined the feminine declension, which reserves the -n for the plural. Hence, we have die Küche ~ die Küchen in analogy to other feminines like die
Lampe – die Lampen.

In this case, we can confirm our reconstruction since we are dealing with a Latin loan word, cf. classical Lat. *coquina ‘kitchen’. The loaned form must have been vulgar Lat. *kukina – perhaps with the u from culina ‘kitchen’, cf. Ital. cusina.

3.3 How close is close enough?
In our two examples above, there is no doubt that the words in question are descended from a common ancestor. Kitchen and Küche are an exact match and fowl is a narrowing of the general concept in Vogel. Furthermore, we know that fowl historically had the broader meaning (edibility was not a requirement for participation in Chaucer’s “Parliament of Fowls” (1382)). But, how close is close enough?

In a discussion of the loss of Germanic n before the fricative h (cf. denken ~ dachte), Hirt (Hdb. I:111) discusses pairs of words with and without n, e.g., OHG fahan ~ fieng ‘catch ~ caught’. The alternation here is due to the action of Verner’s law (q.v.). Where h is voiceless, preceding n is dropped. Where h is voiced, it combines with n to form ng. Although this particular sound law has been established beyond a shadow of a doubt, can we use it draw a parallel between Goth. leihs ‘light’ and OHG lunga ‘lung’ or Finn. hanko ‘drinking vessel’ (presumably borrowed before n was lost) and OHG habala ‘kettle hook’ or Finn. tenho ‘magic spell’ and Goth. þeihwo ‘thunder’?

Perhaps, the best approach is the one that he tacitly follows. Sound laws have to be established on the basis of clear cognates. However, once such laws are established, we are licensed to use them in a fishing expedition to uncover further, less certain cognates by using the method described above. If you find light and lung, thunder and magic, drinking vessel and kettle hook to be something of a stretch, that is up to you.

Chapter 4: The Comparative Method I - English and German

1 English and German
The similarities between English and German seem to be less apparent to German speakers than to English speakers. Perhaps the reason for this is that, for German speakers, English is a “fact of life,” the de facto medium of international communication. English literacy along with computer literacy and a driver’s license are basic requirements for a well-paying job these days.

On the other hand, English speakers, who learn German, generally do so because they have to fulfill a language requirement for a college degree or perhaps because they are genuinely curious about the German language. Their main interest is seldom practical. After all, everyone in Germany speaks English, don’t they? In any case, they are more likely to see German as an object of curiosity or at least to seek out similarities between the two languages that make their learning task easier.

2 Obvious similarities
After the English-speaking learner of German has gotten over the shock of having to learn three genders for nouns, six words for the and seven common plural forms, similarities begin to become apparent. The most obvious ones are similarities in vocabulary. Consider:

<table>
<thead>
<tr>
<th>Haus</th>
<th>house</th>
<th>Mann</th>
<th>man</th>
</tr>
</thead>
<tbody>
<tr>
<td>mein</td>
<td>mine</td>
<td>sing(en)</td>
<td>sing</td>
</tr>
<tr>
<td>Bier</td>
<td>beer</td>
<td>Finger</td>
<td>finger</td>
</tr>
</tbody>
</table>

To be sure, such exact correspondences in sound and meaning between the two languages are relatively rare. And they might just be due to borrowing. Did the English borrow the word beer along with the beverage from Germany? (This was in fact the case with Sauerkraut and Kindergarten.) That houses and fingers were borrowed along with the words that refer to them is, however, rather unlikely – if not completely impossible.
Here it is worth mentioning the possibility of coincidence. If we examine the vocabulary of any two languages, we are likely to find words similar in sound and meaning that are completely unrelated. For example, Lat. *habere* ~ Ger. *haben* ‘have’, Grk. *theos* ~ Lat. *deus* ‘god’, *Potomac* ‘the river flowing through Washington, D.C.’ ~ Grk. *potamos* ‘river’. Clearly the English-German correspondences are far too numerous to be due to coincidence.

3 Patterned correspondences

The comparison becomes more interesting if we loosen the requirement of exact correspondence between the two languages. Consider, for example, the following words with similar sounds and corresponding meanings:

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salz</td>
<td>salt</td>
</tr>
<tr>
<td>Nacht</td>
<td>night</td>
</tr>
<tr>
<td>Wind</td>
<td>wind</td>
</tr>
<tr>
<td>drei</td>
<td>three</td>
</tr>
<tr>
<td>Vater</td>
<td>father</td>
</tr>
<tr>
<td>Bruder</td>
<td>brother</td>
</tr>
</tbody>
</table>

If they had been borrowed, it is difficult to see why they changed in sound. After all, German *Salz* could have been borrowed as English “salts.” English *night* could have been borrowed as German “Neit.” Even more significant is the fact that the difference between the two languages seem to be systematic. For example, there are quite a few words of similar meaning where English has a *t* after *l* or *r* and German has a *z* in the corresponding position:

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>salt</td>
<td>Salz</td>
</tr>
<tr>
<td>heart</td>
<td>Herz</td>
</tr>
<tr>
<td>malt</td>
<td>Malz</td>
</tr>
<tr>
<td>wart</td>
<td>Warze</td>
</tr>
<tr>
<td>bolt</td>
<td>Bolzen</td>
</tr>
<tr>
<td>fart</td>
<td>Furz</td>
</tr>
</tbody>
</table>

To be sure, there are a number of apparent exceptions to the rule: *sort* ~ *Sorte*, *tart* ~ *Torte*. A bit of investigation reveals, however, that these words were borrowed from Latin via French in both English and German at a relatively recent date. The pairs in the tables above seem to be much more fundamentally related.

4 Words related in meaning

If we relax the requirement that the word pairs mean exactly the same thing, we can find further likely correspondences:

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>smart</td>
<td>Schmerz</td>
</tr>
<tr>
<td>shirt</td>
<td>Schürze</td>
</tr>
<tr>
<td>smelt</td>
<td>schmelzen</td>
</tr>
<tr>
<td>lent</td>
<td>Lenz</td>
</tr>
<tr>
<td>felt</td>
<td>Filz</td>
</tr>
<tr>
<td>lent</td>
<td>Lenz</td>
</tr>
<tr>
<td>mint</td>
<td>Minze</td>
</tr>
</tbody>
</table>

If you check in the dictionary, you will find that *smart* really does mean a kind of burning pain caused by a slap in addition to the more common meaning “intelligent.” Both English *shirt* and German *Schürze* are pieces of clothing. English *smelt* means to melt ore to separate out the metal – one of the meanings of German *schmelzen*.

English spelling presents a number of interesting riddles as well. How is it that English words with silent-*<gh>* and *<gh>* pronounced /f/ are almost paralleled by German words with *<ch>*? Consider:

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>laugh</td>
<td>lachen</td>
</tr>
<tr>
<td>cough</td>
<td>keuchen</td>
</tr>
<tr>
<td>through</td>
<td>durch</td>
</tr>
<tr>
<td>high</td>
<td>hoch</td>
</tr>
<tr>
<td>night</td>
<td>Nacht</td>
</tr>
<tr>
<td>freight</td>
<td>Fracht</td>
</tr>
</tbody>
</table>

German influence on English could hardly account for this. The only reasonable explanation is that English once had a sound similar to the sound represented by *<ch>* in German, but has lost it or changed it to /f/.

Similarly, the easiest way to account for correspondences like *heart* ~ *Herz* is to assume that an original /rt/ - once shared by both languages has changed to /rts/ in German.
The forms that more or less exactly correspond, e.g., *Haus* - *house*, *Finger* - *finger*, have either remained unchanged in both languages or have undergone parallel (and unrelated) change. In the case of *Finger* - *finger*, the historical form has remained unchanged. With *Haus* - *house*, English and German have independently developed a diphthong /au/ from an earlier long vowel /äu/. An additional example of this sort of “convergence” is the vocalization of *r* after a vowel in Standard German and the British English (cf. the pronunciation of *for* and *vor*).

5 Historical records
This should remind us that historical linguistics is a historical science and we are thus fundamentally dependent on the facts in our possession for our analyses. Fortunately, we have quite a bit of information about the history of English and German (although not nearly as much as we would like to have) so we can clear up at least some of these questions.

The earliest sources for English and German (going back more than a thousand years) record forms like *finger* and *hūs*. Thus, it is clear that *finger* is an original form, whereas *Haus* and *house* both developed from an earlier form *hūs* although the developments took place independently, long after German and English had gone their separate ways.

Historical records can also help in another way. There are striking parallels between English and French as well as between English and German. Consider the following table. In the first two columns we have similarities between modern French and English, but thanks to historical records, we know that Old English (before the Norman Conquest) used other words which are strikingly similar to modern German:

<table>
<thead>
<tr>
<th>French</th>
<th>English</th>
<th>OE</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>face</td>
<td>face</td>
<td>anwīlīta</td>
<td>Antlitz</td>
</tr>
<tr>
<td>sauvēr</td>
<td>savior</td>
<td>hǣlend</td>
<td>Heiland</td>
</tr>
<tr>
<td>royāl</td>
<td>royāl</td>
<td>cynelic</td>
<td>königlīch</td>
</tr>
<tr>
<td>unitē</td>
<td>unity</td>
<td>ānnes (cf. oneness)</td>
<td>Einheit</td>
</tr>
</tbody>
</table>

From these examples it should be clear that German and English were once much more similar than they are today. Because of the influence of French and Latin, a good deal of the similarity in vocabulary has been lost.

6 Similarities in inflection
The similarities between German and English go beyond the vocabulary. English like German forms the past tense and the past participle of most verbs with a final /-d/ or /-t/ mostly spelled < -ed >. Consider *love* - *loved* - *loved* - *lieben* - *liebte* - *geliebt*. There is no parallel here to French or Latin. More interesting still are the “irregular” verbs that change their internal vowels in the different stem forms: *sing* - *sang* - *sung* - *singen* - *sang* - *gesungen*. Although borrowing of words between languages is common, borrowing of complex, systematic alternations of this sort is virtually unknown. Once again, the verb forms point to an “ānnes” between German and English.

Other irregular verbs reinforce the comparison. Consider English *think*. According to the pattern *sink* - *sank* - *sank*, we might expect *think* - *thank* - *thunk(!). In fact, we find *think* - *thought* - *thought*. The very same anomaly occurs in German *denken* - *dachte* - *gedacht*. Remember <gh> = <ch>. This is a very important point: A deeper relationship between German and English is revealed by shared irregularities, rather than identical patterns. English has borrowed thousands of verbs from French and Latin, but the English forms of the verb do not agree with their sources. Consider the English verb *finish*. 
It is derived from the present plural of the French verb finir (finissons, finissez, finissent). In English there is no trace of the present singular (finis, finis, finit), or the simple past: finis, finis, finit, finimes, finites, finirent or of the past participle fini. All the forms in English are derived from present plural in French: finish, finished, finished using the common device of adding the suffix -ed, which English shares with German.

7 Parallels in syntax (‘Satzbau’)

So far, we have used sound correspondences and inflectional similarities to demonstrate the relationship between languages (German and English). This leads to the question Can we also use syntactic similarity (similarity in sentence structure) to prove relationship?

The answer may come as something of a surprise. In general, it is no! Why not? Well, remember that both the sound and the inflectional form of words is arbitrary. That is, there is nothing about the sequence of sounds in finger that makes them particularly well suited to refer to “one of the four long thin parts of your hand” (Dictionary of Contemporary English). And quite different sequences like those in Sp. dedo or Fin. sormi do quite as well. Thus, if English, German, Dutch, Swedish, etc. all have this word, that is an indication of relationship (at least after borrowing and coincidence have been eliminated as likely causes).

The same is true of inflectional forms. Even in borrowed words, we do not find borrowed inflection. Hence, the pattern i ~ a~ u in verbs like sing in the Germanic languages is a sure sign of genetic relationship.

Syntax, however, is not arbitrary in the same way! We can illustrate this with a rather simple observation. Consider the sentence:

<table>
<thead>
<tr>
<th>John</th>
<th>loves</th>
<th>Mary.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Verb</td>
<td>Object</td>
</tr>
</tbody>
</table>

The normal word order of the simple declarative sentence in English is illustrated above: SVO. Let us ask first How many basic orders of these three elements are possible? The mathematicians will be quick to answer 3! = 6 (i.e., there are six possible orderings of three elements):

<table>
<thead>
<tr>
<th>SVO</th>
<th>OVS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOV</td>
<td>VOS</td>
</tr>
<tr>
<td>VSO</td>
<td>OSV</td>
</tr>
</tbody>
</table>

As it turns out, only the patterns in the left column of the table above are widely found among the world’s 6500+ languages. The patterns in the right column are extremely rare, OVS and OSV have only been found among a few languages native to the jungles of Brazil. Hence, most of the worlds languages have SVO, SOV or VSO word order. Basic word order is anything but arbitrary and correspondencies are found among languages that cannot be shown to be related by comparison of vocabulary or inflection. English, for example, shares its basic word order (SVO) with Chinese and Swahili among others. The conclusion is that basic word order cannot be used to establish genetic relationship between languages.

Nevertheless, distinctive and unusual patterns can bolster other arguments for genetic relationship.

7.1 German and English syntax

Syntactic parallels between German and English are not as obvious, but one example may suffice. Typical of German is the so-called VII-Rule which says that in a declarative main clause the inflected verb always stands in the second position. Consider:

Ich verbrachte meinen Urlaub letztes Jahr in Spanien.
Letztes Jahr verbrachte ich meinen Urlaub in Spanien.

I spent my vacation last year in Spain.
Last year, I spent my vacation in Spain.

Moving the adverbial phrase letztes Jahr to the front causes verb-subject inversion in the German sentence so that the inflected verb will
stay in the second position. In the English sentence, however, the subject-verb order is not affected by moving the adverbial phrase last year to the front. Apparently, English does not have the VII-Rule. But, note the following:

I have never seen such a mess!
Never have I seen such a mess!

If a negative element like never stands in the first position and the verb is constructed with an auxiliary, the VII-Rule applies in English too! A sentence like *Never I have seen such a mess is quite impossible. (The star here means an ungrammatical sentence.) This can hardly be a coincidence. It is more likely that German and English were once very similar in this respect and that English restricted the VII-Rule to obligatory inversion with a negative element and “stylistic inversion” in a number of other cases.

Another striking difference between modern English and modern German is the word order in subordinate clauses, where German puts the finite (inflected) verb at the end of the clause. Compare:

Sie nahmen ihre Hauptstadt, die sie “Capitolium” hießen.
They took their chief place, which they called “Capitolium.”

Although not as strict as modern German in its word order, Old English also puts the inflected verb at the end in such clauses in most cases:

hie benóman heora heofondstedes þæt hie Capitolium hétan.
(Orosius 86,30)

Note that the German and Old English sentences are not only identical in word order, but in vocabulary as well. Old English has benóman, heofondstede, hétan parallel to German nahmen, Hauptstadt, heißen. Modern English has they, their, took, called from Scandinavian and capital from Latin. Except for that there is nothing of the original left!

7.2 English and German – Affectionate Sisters

Clearly, there are a large number of similarities between German and English and the further one goes back in time the more similarities appear. The conclusion we are led to is that German and English would “merge” into a common language if we could follow their history far enough back in time. Put another way, German and English are descendants of a common great grandmother.

There is nothing really extraordinary about this. We know, for instance, that the so-called Romance languages (French, Spanish, Italian, etc.) are all descended from Latin. The difference is that many Latin documents have come down to us so that, in the case of the Romance languages, we have a first-hand acquaintance with the “parent” language. In the case, of German and English, there are no literary remains of the extinct parent. We can, at best, hope to reconstruct it by comparing its offspring.

8 Direction of change

The following table compares German and English consonants and indicates their origin from their common “mother” – in this case, a language we call “West Germanic.” The sounds we find in standard German are the result of what is called “the High German Sound Shift,” the second part of Grimm’s Law (see Chapter 5).

High German Sound Shift:

<table>
<thead>
<tr>
<th>Mother, English</th>
<th>German initial</th>
<th>German V,V, final</th>
<th>German doubled</th>
<th>German after l,r,m,n</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>pf</td>
<td>ff</td>
<td>pf</td>
<td>pf &gt; ff</td>
</tr>
<tr>
<td>t</td>
<td>ts</td>
<td>ss</td>
<td>ts</td>
<td>ts</td>
</tr>
<tr>
<td>k</td>
<td>k (kh)</td>
<td>ch</td>
<td>ck</td>
<td>ch</td>
</tr>
</tbody>
</table>

Examples – p/pf/ff: pepper, ship, sleep, help, shape ~ Pfeffer, Schiff, schlafen, helfen, schöpfen; t/ts/ss: tide, water, foot, heart, sit ~ Zeit.
In general terms, voiceless stops in Mother become voiceless affricates or long fricatives in High German (depending on position in the word). English agrees with Mother. High German has innovated. But, how do we reach this conclusion?

We can cite three reasons:

1. **Plausibility** - The change from stop to affricate to fricative (e.g., \( p > pf > ff \)) is far more natural than the change from affricate and fricative to stop (e.g., \( pf, ff > p \)).

2. **Majority** - All of the other Germanic languages including Scandinavian and Gothic have stops (Old Norse hjalpa, Dutch helpen, Gothic hilpan). It is more likely that one variety (High German) innovated than that the rest of the Germanic family underwent the same unlikely change from affricate and fricative to stop.

3. **Geography** - The High German consonants are most consistently found in the south west (present day Switzerland, where we find Kčhnd for Kind). As we move north, the effects of the sound shift gradually die out (like the waves produced from throwing a stone into a pond) until only \( p, t, k \) are found north of the Benrath line (see the map in the Appendix). If the High German consonants were original, there would be no way to explain why the shift to \( p, t, k \) took place along a front stretching from the town of Benrath in the west to a point just north of Berlin and on into East Prussia.

4. **Loan words** – In this case, we also have “the smoking gun” – namely, the treatment of Latin loan words. Consider NHG Pflanze < Lat. planta, NHG Küche < Lat. coquina. Since the Latin source words clearly have \( p, t, k \) the High German development must be an innovation.
Chapter 5: The Comparative Method II – Researching the Past

1 Finding the apples - which languages to compare
In the previous sections, we emphasized the primacy of sound over meaning in the search for cognates between two related languages. But, there is an even more primitive problem to consider – how do we look for related languages to compare in the first place?

In this endeavor, we have two rather rough and ready servants – geography and the meaning bridge.

1.1 Geography
The geography principle is fairly obvious – related languages are likely to be found in neighboring areas. Think of the romance languages like Spanish, Portuguese, Catalan, French, Italian, etc. They are neighbors so it would be hardly surprising if they turned out, on examination, to be related. On the other hand, Basque, which resides in their midst, is not related to them. Similarly, German and Hungarian, Swedish and Finnish are not related although they are neighbors who live shoulder to shoulder.

By the same token, one cannot argue that two languages are not related because they geographically separated. Afrikaans (spoken in South Africa) is clearly related to Dutch despite the distance between Amsterdam and Johannesburg – a trivial case since we are well-informed about colonial history in Africa.

More interesting perhaps is the case of Tocharian, a west Indo-European language found far to the east in Chinese Turkestan. The linguistic evidence is overwhelming. We cannot say Oh, they couldn’t have walked that far.

All in all, we can say that despite its limitations, geography is an important help in seeking related languages. It is always wiser to look for gold where it is most likely to be found rather than under your bed because nobody can tell for sure.

1.2 The meaning bridge
Since we do not yet have patterned sound correspondences or even a place to look for them, we have no other choice than to look for words with similar or identical meaning in a particular geographic area and determine whether they are candidates for a “language family.”
Since recent, international culture words (like psychology or information) which have been widely borrowed are unsuitable for our search, we must compare “core vocabulary,” basic words like numbers, body parts or terms for family members that are resistant to change over time.

Resistant does not mean impervious. German Onkel was obviously borrowed from French oncle and replaced earlier Oheim. Kopf, cf. Eng. cap, was part of the original German vocabulary and replaced Haupt as the common word for ‘head’. Haupt survives, of course, in the figurative sense of ‘chief’, e.g., Hauptkommissar ‘chief inspector’.

As an example, consider the follow table of the words for “finger” in the European and Middle Eastern area:

<table>
<thead>
<tr>
<th>Language</th>
<th>Word</th>
<th>Language</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basque</td>
<td>hatz</td>
<td>Hungarian</td>
<td>uij</td>
</tr>
<tr>
<td>Breton</td>
<td>biz</td>
<td>Icelandic</td>
<td>finger</td>
</tr>
<tr>
<td>Bulgarian</td>
<td>(prust)</td>
<td>Interlingua</td>
<td>digito</td>
</tr>
<tr>
<td>Catalan</td>
<td>dit</td>
<td>Italian</td>
<td>dito</td>
</tr>
<tr>
<td>Czech</td>
<td>prst</td>
<td>Latin</td>
<td>digitus</td>
</tr>
<tr>
<td>Danish</td>
<td>finger</td>
<td>Norwegian</td>
<td>finger</td>
</tr>
<tr>
<td>Dutch</td>
<td>vinger</td>
<td>Polish</td>
<td>palec</td>
</tr>
<tr>
<td>English</td>
<td>finger</td>
<td>Portuguese</td>
<td>dedo</td>
</tr>
<tr>
<td>Esperanto</td>
<td>fingro</td>
<td>Romanian</td>
<td>deget</td>
</tr>
<tr>
<td>Estonian</td>
<td>sorm</td>
<td>Russian</td>
<td>(perst),(pálets)</td>
</tr>
<tr>
<td>Finnish</td>
<td>sormi</td>
<td>Slovak</td>
<td>prst</td>
</tr>
<tr>
<td>French</td>
<td>doigt</td>
<td>Slovene</td>
<td>prst</td>
</tr>
<tr>
<td>Frisian</td>
<td>finger</td>
<td>Spanish</td>
<td>dedo</td>
</tr>
<tr>
<td>German</td>
<td>Finger</td>
<td>Swedish</td>
<td>finger</td>
</tr>
<tr>
<td>Greek</td>
<td>(daktylos)</td>
<td>Turkish</td>
<td>parmak</td>
</tr>
</tbody>
</table>

A cursory examination of the sources reveals that Eng. finger is hardly alone. We find similar forms in Danish, Dutch, Esperanto, Icelandic, Norwegian and Swedish. This a strong indication that we
should seek similar correspondencies in other parts of the core vocabulary and perhaps proceed to the kind of in-depth phonological and morphological comparison we described in the last Chapter. Naturally, we would want to gather more evidence before proceeding to a full-scale investigation, but the cursory results are very encouraging.

A second group emerges from the form *prst*. Here we find a correspondence between Czech, Slovak, Slovene, Bulgarian and Russian. These are classified as the “Slavic” languages. Notice that Polish lacks this form in the meaning ‘finger’ and uses another form, *palec*, which also occurs in Russian. A bit more investigation reveals, however, that there is a Polish word *naparstek* ‘thimble’, which clearly belongs here. Thus, we have, perhaps, discovered another language family.

A rather more difficult case is presented by the *digitus* group. We find a number of similar words that bear a striking similarity to the Latin word for finger, but the exact relations are far more difficult to determine. Can we find sound laws that lead from Lat. *digitus* to French *doigt* and Spanish *dido*?

Finally, we are left with isolated cases, where no plausible relationship can be seen. There is some evidence of a relationship between Finnish and Hungarian, but this is not confirmed by Hung. *uij ~ Finn. sormi*. Est. *sorm* is, however, obviously related to Finnish.

No one has presented convincing evidence of a relationship between Basque and any other language, living or dead. *haz* for ‘finger’ is hardly likely to change anyone’s mind.

I have thrown in two “wild cards” Esperanto *fingero* and Interlingua *digito*. Both of these are constructed, international auxiliary languages. Esperanto bases its vocabulary mostly on the romance and Germanic languages, hence *fingero* ‘finger’ and *knabo* ‘boy’. Interlingua is basically a simplified form of Latin, hence *digito* ‘finger’ and *puero* ‘boy’.

Thus, from a basic comparison of core vocabulary, we can obtain leads for a more exhaustive examination, which may or may not confirm family membership.

For the curious, I have included the “core vocabulary” list compiled by the American linguist Morris Swadesh in the Appendix.

2 Early attempts

By the time of the Renaissance, scholars were well aware of the facts about the origin of the Romance languages mentioned at the end of the last Chapter. They could easily have worked out the rules of sound change based on a comparison of Latin with its daughter languages, French, Spanish, Italian, Portuguese, etc., and then applied the knowledge they had gained about sound change from this analysis to the far more difficult problem of searching for the origins of the mother from which Latin, Greek, German and other European languages are descended. They did not do this, however.

In asking why, we can imagine two reasons. First, the origin of the Romance languages was known, hence there was nothing particularly interesting about pursuing this question. Far more interesting, was to discover the source of all languages. Furthermore, the evolution (they certainly wouldn’t have used this word) of, say, Spanish from the classical Latin of Julius Caesar had taken some 1,500 years and yet the close similarity was obvious.

Explaining the far greater differences between Greek, Latin and the oldest available German would thus require more time than there was in the age of the universe. Remember, at that time it was generally assumed, relying on the information in the Bible, that the universe was created around 4,000 BC.

Early estimates were based on the genealogies in the Bible. The Venerable Bede (d. 735), an English monk and a leading scholar of his day, placed the creation in 3963 B.C. The Jewish rabbinical tradition determined October 6, 3761 B.C. as the date of creation. By far the most influential chronologist was James Ussher, Anglican Archbishop of Armagh and Primate of All Ireland, who published the date Sunday, October 23, 4004 B.C. as the first day of creation in his *Annals of the World* (1650 in Latin, 1658 in English). Ussher’s chronology later found its way into editions of the King James Bible in the form of marginal notes and was considered authoritative.

This approach to chronology did not begin to come apart until the development Egyptology and Assyriology in the middle of the nineteenth
century. The scientific study of these civilizations showed that they must have
thrived long before the purported date of Noah’s Arc (Ussher 2348 B.C.) and
no such destruction as might have been expected from the Great Flood was
discernable from the historical record (e.g., the Flood would have destroyed
the clay tablets on which the Assyrian records were recorded).

Besides which, they already had the answer (many thought). The Biblical account in Genesis leaves no doubt that all humans, regardless of
what languages they may have spoken were wiped out by the Great
Flood. Thereafter, there was no one left but Noah and his family, who
assuredly all spoke the same language as did their immediate
descendants. This is confirmed in Genesis 11:01: “And the whole earth
was of one language, and of one speech.” The vast differences between
Hebrew, Latin, Greek, German, etc., were to be explained by the
Biblical story of the Tower of Babel, described in the same Chapter of
the Book of Genesis. “Let us go down, and there confound their
language, that they may not understand one another's speech” (Genesis
11:07). But, what was the original language? The best guess was that
it was the language the Lord spoke with Moses while handing down the
Ten Commandments. If we compare the language the Lord spoke to
Noah with the language he spoke to Moses, they are clearly the same.
Thus, all languages must have descended from Hebrew. The major
differences were caused by the hand of the Lord. This cataclysmic
change that created Latin, Greek and German was to be distinguished
from the slow evolutionary change that had created Spanish, French and
Italian.

Given the state of their knowledge about natural history, this was
not an implausible theory. The problem was how to prove it and the
method was thoroughly false. They did not look for regular patterns,
but rather collected chance similarities between words that seemed to
prove what they wanted to prove – that Hebrew was the mother of all
languages.

Here is an example from an attempt by Cruciger (1616):

<table>
<thead>
<tr>
<th>German</th>
<th>Latin</th>
<th>Greek</th>
<th>Hebrew</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metall</td>
<td>metallum</td>
<td>metallon</td>
<td>metil</td>
</tr>
<tr>
<td>Sack</td>
<td>saccus</td>
<td>sákkos</td>
<td>sak</td>
</tr>
<tr>
<td>Fuß</td>
<td>pēs</td>
<td>pōs</td>
<td>pasah</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>‘pass by’</td>
</tr>
<tr>
<td>Acker</td>
<td>ager</td>
<td>agros</td>
<td>ikkar</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>‘field worker’</td>
</tr>
</tbody>
</table>

The resemblance between German, Latin and Greek with regard to
the first two words (Metall, Sack) is based on the fact that Latin had
borrowed them from Greek and German from Latin (then quite recently). Sack is probably borrowed from a Semitic language, but the
resemblance of Metall to Hebrew is pure coincidence. If one compares
thousands of words of vocabulary between any two languages, there is
a statistically significant chance that some of pairs with similar form
and meaning will turn up. Compare Eng. much and Sp. mucho. The
English is derived from the root *meg ‘great’, the Spanish from Lat.
multu < *mel ‘strong’.

The German, Latin and Greek words for Fuß, Acker really are
“urverwandt.” The resemblance to Hebrew is coincidental. In Latin
and Greek, the root of the word for ‘foot’, for instance, actually ends in
d (ped-pod-). The Hebrew root is p-s-h, so all that remains of the
similarity is the initial p.

The Latin form is from *peds. The d drops before s with compensatory
lengthening yielding pōs. In Greek the process is the same with the o-grade
of the stem. In the genitive (and other cases) the d reappears: pedis, podis. The
High German form is, of course, the result of Grimm’s Law (see below): d >
t > ss. Hirt (1927:170) entertains the possibility that IE *agro- is a loan word
in Indo-European, derived from Akk. ikkaru ‘field worker’. This, of course,
would not prove relationship, but simply borrowing.
Oddly enough, this method, driven by conviction rather than systematic observation, persisted well into the nineteenth century. Noah Webster, the famous American lexicographer, produced fanciful etymologies of this sort for his *American Dictionary* (1828). They weren’t replaced until the edition of 1864 – after his death.

3 The breakthrough
The breakthrough came in 1786 when Sir William Jones, a British judge in India, noticed the remarkable resemblances between Greek, Latin and Sanskrit (the ancient language of the Hindus). He surmised, correctly, that they along with the German, Celtic and Slavic languages might have developed from a common source, which perhaps no longer existed:

The Sanskrit language, whatever be its antiquity, is of a wonderful structure; more perfect than the Greek, more copious than the Latin, and more refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs and in the forms of grammar, than could possibly have been produced by accident; so strong indeed that no philologer could examine them all three, without believing them to have sprung from some common source, which, perhaps, no longer exists: there is a similar reason, though not quite so forcible, for supposing that both the Gothic and the Celtic, though blended with a very different idiom, had the same origin with the Sanskrit; and that the old Persian might be added to the same family.

Thirty years later, the Dane Rask (1787-1832) and Jacob Grimm (1785-1863) (of Grimm’s Märchen) demonstrated the systematic relationship between the Germanic languages, on the one hand, and Latin and Greek on the other. For example, where Latin and Greek have an initial *p*, German and English have *f*.

<table>
<thead>
<tr>
<th>Latin</th>
<th>Greek</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>pater</em></td>
<td><em>patér</em></td>
<td><em>father</em></td>
<td><em>Vater</em></td>
</tr>
<tr>
<td><em>ped-</em></td>
<td><em>pod-</em></td>
<td><em>foot</em></td>
<td><em>Fuß</em></td>
</tr>
<tr>
<td><em>pur-</em></td>
<td><em>pyr</em></td>
<td><em>fire</em></td>
<td><em>Feuer</em></td>
</tr>
<tr>
<td>---</td>
<td><em>poly-</em></td>
<td>---</td>
<td><em>viel</em></td>
</tr>
<tr>
<td><em>porcus</em></td>
<td>---</td>
<td>---</td>
<td><em>Ferkel</em></td>
</tr>
</tbody>
</table>

The point is that these resemblances cannot be due to coincidence. There are just too many of them. And they cannot be due to borrowing since they would have been borrowed in something like their original form. Consider English *paternal*, *pedestrian*, *pure*, *polygon*, *pork*, which were all borrowed much later from Greek or Latin (sometimes via French) and all have initial *p*.

This principle can generalized to the other voiceless stops, which also appear as fricatives in the Germanic languages:

<table>
<thead>
<tr>
<th>Latin</th>
<th>Greek</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ped-</em></td>
<td><em>pod-</em></td>
<td><em>foot</em></td>
<td><em>Fuß</em></td>
</tr>
<tr>
<td><em>trēs</em></td>
<td><em>treis</em></td>
<td><em>three</em></td>
<td><em>drei</em></td>
</tr>
<tr>
<td><em>cord-</em></td>
<td><em>kardia</em></td>
<td><em>heart</em></td>
<td><em>Herz</em></td>
</tr>
</tbody>
</table>

(The *d* in German *drei* is due to a later development.)

Similarly, the voiced stops (where Latin and Greek agree) correspond to voiceless stops in Germanic:
The German forms are, of course, due to the High German Sound Shift.

Grimm noted a third set of correspondencies which are far more problematic:

<table>
<thead>
<tr>
<th>Latin</th>
<th>Greek</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>fero</td>
<td>phero</td>
<td>bear</td>
<td>gebären</td>
</tr>
<tr>
<td>forum</td>
<td>thura</td>
<td>door</td>
<td>Tor</td>
</tr>
<tr>
<td>(h)anser</td>
<td>khan</td>
<td>goose</td>
<td>Gans</td>
</tr>
</tbody>
</table>

The earliest researchers reconstructed voiced aspirates (bh, dh, gh) as the origin of this series. Sanskrit, then the oldest and most revered member of the family, had these sounds (e.g., Skt. bhero ~ Grk. phero ~ Eng. bear, Skt. madhu- ‘honey’ ~ Grk. methu ‘wine’ ~ Eng. mead ~ Ger. Met, Skt. hima- < *ghima-, Grk. kheima ~ Lat. hiems ‘winter’).

Subsequent generation of investigators have found this reconstruction unlikely at best. Voiced aspirates are found nowhere else in the Indo-European languages outside of India and such sounds are extremely rare in the world’s languages. Other solutions have been proposed, but none is completely satisfactory. The representation bh, dh, gh should be considered “symbolic” for whatever those sounds really were.

There were numerous other complications involving the back row of stops which were divided into palatal and velar stops (k’, g’ ~ k, g), labialized and non labialized (kw, gw ~ k, g) both with and without aspiration. These complications are not important for the Germanic languages so will not explore them here. Let one example suffice. From PIE *gwerhem- ‘warm’ are derived:

Skt. ghram ‘melted butter’ ~ Grk. thermos ‘warm’ ~ Lat. fornum ‘oven’ ~ Eng. burn.

In any case, if whole sets of sound correspondencies between two languages can be found, it is certain that they are more or less distantly related, even if unsolved problems remain.

Nevertheless, the regularities were not without problems. Some were easily explained. Notice that p, t, k are not shifted in words like:

Lat. spuer ~ Ger. speien ‘vomit’, Lat. est ~ Germ. ist, Lat. piscis ~ Goth. fisks ‘fish’. Clearly, the shift of the voiceless stops to fricatives does not take place after the fricative s. The same is true of voiceless stops that follow fricatives created by the sound shift: pt > ft, Lat. captus ‘prisoner’ ~ Ger. Haft ‘arrest’; kt > cht, Lat. noctis German. Nacht.

Only the first stop is shifted.

One major problem remained. While the correspondencies were clear at the beginning of a word, puzzling exceptions were sometimes found in the middle of a word. Consider the following correspondences between Latin and German:

Latin frater corresponds to German Bruder as expected (t ~ d) just like treis ~ drei, but Latin pater corresponds to German Vater and Latin mater corresponds to German Mutter (t ~ t).

Grimm was profoundly frustrated by these apparent exceptions to the First German Sound Shift. In the first volume of his monumental Deutsche Grammatik (1819), he complains:

Die lautverschiebung erfolgt in der masse, tut sich aber im einzelnen nie rein ab. Es bleiben wörter in dem verhältnis der alten einrichtung stehen, der strom der neuerung ist an ihnen vorbeigeflossen.

The sound change takes place in most cases, but is never perfect in detail. There are words left over which remain in the old condition, the stream of innovation has passed them by.

It wasn’t until more than half a century had gone by that the solution to the problem was found by Karl Verner. He noticed (in 1875) that, in Greek and Sanskrit, there was a difference in accentuation between the words that behaved regularly and those that were apparent exceptions:
Where the accent immediately preceded the voiceless stop as in *phráter* the development was regular in accordance with “Grimm’s Law.” Where the accent was not on the immediately preceding vowel as in *patér*, where it follows, a different but equally regular development takes place in accordance with what is now known as “Verner’s Law.”

The details are a bit complicated. Verner took the verb forms as his point of departure. Grimm had already noted a peculiarity that he called “grammatischer Wechsel.” Consider Mod Eng. *was ~ were*, where there is a change between the consonant of the past singular and plural. After considering possible conditions for the alternation, Verner shows that only the position of the original PIE accent can be responsible, cf.

<table>
<thead>
<tr>
<th>Sanskrit</th>
<th>Old Eng.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I turn</td>
<td>vārtami</td>
</tr>
<tr>
<td>I turned</td>
<td>vavārta</td>
</tr>
<tr>
<td>they turned</td>
<td>vavrtimá</td>
</tr>
<tr>
<td>turned</td>
<td>vavrtaná</td>
</tr>
</tbody>
</table>

Voiceless fricatives become voiced in voiced surroundings unless the accent immediately precedes, cf. the modern German pronunciation of *Hannóver* with /f/ vs. *Hannoveráner* (with /v/). In the example above, *t > θ* in accordance with Grimm’s Law where the accent is on the preceding syllable in Sanskrit. Where the accent follows, as in the last two forms, *θ > ð > d*. In the case of *was ~ were*, in the past singular the original accent was also on the stem and in the past plural on the ending. The alternation is *s ~ z*, where *z > r*. In the modern languages grammatical change has mostly been leveled. English has just this one example and German only has three: *ziehen ~ zog ~ gezogen, leiden ~ litt*.

---

The impact of Verner’s paper cannot be overestimated. He presented his evidence in the form of a mathematical proof, which set new standards of exactness in linguistic investigation.

The solution to a number of other long-standing problems around the same time by a group of young scholars centered around the University of Leipzig (*die Junggrammatiker*) led to the proclamation that there are no irregularities in sound change, only undiscovered laws.

Even more convincing is a comparison of the inflectional systems of the Indo-European languages. The pioneer in this field was the German scholar Franz Bopp (1791-1867), who thoroughly investigated Jones’s observations about “the roots of the verbs and the forms of the grammar.”

The following table illustrates the history of the Indo-European verb “bear.” If an educated Greek scholar had sat down with a German at the beginning of the Christian era, it is hard to imagine that they would not have noticed the resemblances. Unfortunately, the last thing the Greeks were interested in was finding correspondences between Greek and “barbarian” languages. And the last thing the Germans were interested in was comparative linguistics.

### Indo-European “bear”

<table>
<thead>
<tr>
<th>Indo-Eur. (reconst.)</th>
<th>Greek</th>
<th>Germanic (reconst.)</th>
<th>Old High German</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singular</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st pers.</td>
<td>bherō</td>
<td>pherō</td>
<td>berō</td>
</tr>
<tr>
<td>2nd pers.</td>
<td>bheresi</td>
<td>phereis</td>
<td>beris</td>
</tr>
<tr>
<td>3rd pers.</td>
<td>bhereti</td>
<td>pherei</td>
<td>berith</td>
</tr>
</tbody>
</table>
Plural

<table>
<thead>
<tr>
<th></th>
<th>1st pers.</th>
<th>2nd pers.</th>
<th>3rd pers.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bheromes</td>
<td>bherete</td>
<td>bheronti</td>
</tr>
<tr>
<td></td>
<td>pheromes</td>
<td>pherete</td>
<td>pheronti</td>
</tr>
<tr>
<td></td>
<td>berames</td>
<td>berith</td>
<td>berand</td>
</tr>
<tr>
<td></td>
<td>berames</td>
<td>beret</td>
<td>berant</td>
</tr>
</tbody>
</table>

Notes:
1. In general the Germanic forms are one segment shorter than Indo-European.
2. In the unaccented endings of OHG, \( e > i, \ddot{a} > u \). The high vowels of the endings allowed raising of the stem vowel.
3. The 1\(^{st}\) and 3\(^{rd}\) plural of the Greek are taken from the Dorian dialect.
4. OHG berames may be from beram + mes ‘we’, cf. Bav., Yidd. mir ‘we’.
5. The 2\(^{nd}\) plural beret might be a contamination between the expected form berit and the other plural forms with /\(a/\). This is, however, rather speculative.

4 Mother – Proto-Indo-European (‘Urindogermanisch’)

By a process of comparison as outlined above, it has been possible to trace most of the languages of Europe and northern India back to a common origin (probably in present-day Lithuania). Proto-Indo-European, as we call the mother tongue, is certainly not the mother of all languages. Language as we know it is as old as our species (sixty to one hundred thousand years old) and Proto-Indo-European dates from some time before 3500 BC. It is not the “original” language. It is just as far back in time as we can go using scientific methods and given the information we have. We will consider Proto-Indo-European in a bit more detail in Chapter 8 below.

4.1 The method

Of primary importance is the linguistic evidence and the method we use to reach our conclusions. Consider the following comparative table for the Indo-European word for ‘sheep’:

<table>
<thead>
<tr>
<th>Indo-European: “owis ‘sheep’</th>
<th>English</th>
<th>Latin</th>
<th>Greek</th>
<th>Sanskrit</th>
<th>Lithuanian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ewe &lt; awi</td>
<td>ovis</td>
<td>ois</td>
<td>avis</td>
<td>avis</td>
</tr>
</tbody>
</table>

Given the huge geographic spread of these similar words for ‘sheep’, borrowing would seem to be ruled out – or, if the word was borrowed, it must have been transmitted at a time when the Indo-European languages were located in a small geographical area, before the Indo-European “Völkerwanderung.”

More impressive than the obvious similarities are the patterned differences. That is, in each of the languages, the word for ‘sheep’ developed away from the ancestral word in accordance with the laws of sound change that prevail in the language in question.

Thus, Indo-European \( o \) regularly becomes Germanic \( a \) (cf. Latin octo ~ German acht). The \( o \) of the second syllable regularly causes \( i-\)umlaut. The development to the modern pronunciation of ewe as /\(ju/\) in English parallels the development of pew, few. In Greek, \( w \) regularly falls out between vowels. In Sanskrit and Lithuanian, \( o \) regularly becomes \( a \) and \( w > v \).

Because of the complexity of development, the poverty of historical records and the difficulty of interpreting the records that do exist, comparative linguistics cannot achieve mathematical perfection. What has been demonstrated is a mathematical regularity within the limitations of the available data. The main point to remember is that relationship is not established by close similarity (which could be due to chance or borrowing at a recent date), but by patterned differences. Even if the original words were borrowed five thousand years ago, this would make no difference because the patterned differences would still document five thousand years of change.
Chapter 6: The German Noun - Seven Ways to Form the Plural

1 The German plural
For the adult learner of German, one of the big surprises is the fact that there are seven common ways of forming the plural (as contrasted to simply adding -s as in English or Spanish):

<table>
<thead>
<tr>
<th>Ending</th>
<th>Sing.</th>
<th>Plur.</th>
</tr>
</thead>
<tbody>
<tr>
<td>– e</td>
<td>Arm</td>
<td>Arme</td>
</tr>
<tr>
<td>– e (umlaut)</td>
<td>Gast</td>
<td>Gäste</td>
</tr>
<tr>
<td>– en</td>
<td>Bote</td>
<td>Boten</td>
</tr>
<tr>
<td>–</td>
<td>Wagen</td>
<td>Wagen</td>
</tr>
<tr>
<td>– (umlaut)</td>
<td>Laden</td>
<td>Läden</td>
</tr>
<tr>
<td>– er (umlaut)</td>
<td>Lamm</td>
<td>Lämmer</td>
</tr>
<tr>
<td>– s</td>
<td>Auto</td>
<td>Autos</td>
</tr>
</tbody>
</table>

The current system is the rubble left over from the inflectional system of Proto-Germanic. Over the ages, many changes have taken place – nouns have changed their gender and their declension, but strangely enough, a general simplification as in Dutch (plural in -s, -en) or English (plural in -s) has not taken place.

1.1 The weakening of inflectional endings
The transition from OHG to MHG is marked by a reduction of the full vowels of the inflectional endings to the neutral schwa /ə/. This stage had been reached by the year 1100. In the last nine-hundred years relatively little has happened to change the form of the endings. Compare the declension of “Tag” in OHG, MHG and NHG:
The first question to be answered from the modern perspective is Why do some nouns have umlaut plurals while others do not? (i.e., Tag ~ Tage but Gast ~ Gäste)? We have already noted the declension of Tag above, compare the declension of Gast:

<table>
<thead>
<tr>
<th>OHG</th>
<th>MHG</th>
<th>NHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.</td>
<td>tag</td>
<td>tag</td>
</tr>
<tr>
<td>gen.</td>
<td>tages</td>
<td>tages</td>
</tr>
<tr>
<td>dat.</td>
<td>tage</td>
<td>tage</td>
</tr>
<tr>
<td>acc.</td>
<td>tag</td>
<td>tag</td>
</tr>
<tr>
<td>nom.</td>
<td>taga</td>
<td>tage</td>
</tr>
<tr>
<td>gen.</td>
<td>tago</td>
<td>tage</td>
</tr>
<tr>
<td>dat.</td>
<td>tagum</td>
<td>tagen</td>
</tr>
<tr>
<td>acc.</td>
<td>taga</td>
<td>tage</td>
</tr>
</tbody>
</table>

1.2 Umlaut – o-stems and i-stems

The German plurals like Arm ~ Arme without umlaut are so-called o-stems (Greek -os, on, Latin -us, um). Those with umlaut are mostly i-stems (Lat. hostis ‘enemy’), but see below.

In addition to the masculine i-stems, there were also feminine i-stems. In the plural these were declined alike, but in the singular, the feminines had additional forms with umlaut:

<table>
<thead>
<tr>
<th>OHG</th>
<th>MHG</th>
<th>NHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.</td>
<td>kraft</td>
<td>kraft</td>
</tr>
<tr>
<td>gen.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
<tr>
<td>dat.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
<tr>
<td>acc.</td>
<td>kraft</td>
<td>kraft</td>
</tr>
<tr>
<td>nom.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
<tr>
<td>gen.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
<tr>
<td>dat.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
<tr>
<td>acc.</td>
<td>krefte</td>
<td>krefte</td>
</tr>
</tbody>
</table>

The umlaut in the dative singular is historically justified and the dative form was carried over into the genitive. As a price for joining the other feminines, the mutation in the singular was abandoned in the modern language, umlaut was retained in the plural.
A fair number of original i-stems have deserted to the feminine declension by reforming the original plural into a singular form and adopting the “weak” n-ending for the plural, cf. MHG ant ~ ene ‘duck’, NHG Ente ~ Enten. A number of other common nouns belong to this category: Geschichte ‘story’, Leiche ‘corpse’, Säule ‘pillar’. This also explains the strange alternation between Tür ~ Türe as in “Schließen Sie die Tür(e)" ‘Close the door’. The form Tür is the regular development of the i-stem and the variant Türe is a recycled plural.

The umlauted vowel in Tür also needs explanation. After long syllables (those with a long vowel or diphthong or those ending in two or more consonants) the conditioning -i of the ending disappeared before umlaut took place: PG *gastiz > OHG gast. After short syllables (short vowel, one consonant) it remained and caused umlaut: OHG turi, kuri > NHG Tür, Kür ‘choice’.

1.3 Feminine abstract nouns in i
This class is composed of two different groups which had fallen together in OHG – (1) abstract nouns formed from adjectives, e.g., höhö ‘die Höhe’ and (2) abstract nouns formed from verbs weri ‘die Wehr’. The first group is very numerous: Länge, Tiefe, Weite, Stärke, Röte, etc.

1.4 Minor groups
Some o-stems had the formative suffix -je/-jo, which caused mutation due to vowel harmony. This explains the difference between OHG heria ‘herd’ and hirii ‘herdsman’. The so-called u-stems (with the formative -eu/-ou) developed a number of plural forms with -ju < -eu which were generalized, giving us umlauted plurals like Hand ~ Hände, Fuß ~ Füße, Zahn ~ Zähne, Luft ~ Lüfte, Sohn ~ Söhne (cf. Goth. sunus ~ sunus). A large number of masculine nouns denoting inanimate objects have generalized the -n to the nominative and formed a new genitive in -s. Accordingly, most of these do not vary in the plural: Galgen, Knochen, Lappen, Rasen, Schinken, Schlitten, Tropfen, etc. Some, however, have gone over to the i-stems in the plural: Gärten, Gräben, Läden, Schäden. Others, cannot make up their minds. Do you say der Bogen ~ die Bogen or die Bögen? Similarly, Krägen and Kasten although the umlauted plural is more common here.

In a number of cases, the n of the nominative singular has not been firmly established: Funke(n), Friede(n), Glaube(n). Wille and Name have stubbornly resisted leveling the n. It is worth mentioning that two common nouns Vetter and Schmerz have become strong in the singular, but remain weak in the plural.

The feminine n-stems have joined forces with the a-stems (cf.
Latin *puella* 'girl') to form a single declension with -e in the singular and -n in the plural. To see how this fusion took place, consider the following:

<table>
<thead>
<tr>
<th></th>
<th>OHG</th>
<th>MHG</th>
<th>OHG</th>
<th>MHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.</td>
<td>klaga</td>
<td>klage</td>
<td>zunga</td>
<td>zunge</td>
</tr>
<tr>
<td>gen.</td>
<td>klaga</td>
<td>klage</td>
<td>zungun</td>
<td>zungen</td>
</tr>
<tr>
<td>dat.</td>
<td>klagu</td>
<td>klage</td>
<td>zungun</td>
<td>zungen</td>
</tr>
<tr>
<td>acc.</td>
<td>klag</td>
<td>klage</td>
<td>zungun</td>
<td>zungen</td>
</tr>
<tr>
<td>nom.</td>
<td>klago</td>
<td>klaga</td>
<td>zungun</td>
<td>zungen</td>
</tr>
<tr>
<td>dat.</td>
<td>klagom</td>
<td>klage</td>
<td>zungom</td>
<td>zungen</td>
</tr>
<tr>
<td>acc.</td>
<td>klag</td>
<td>klage</td>
<td>zungon</td>
<td>zungen</td>
</tr>
</tbody>
</table>

Note that, in MHG, two of the four forms of the plural (gen. and dat.) of the å-stems already had the ending -en. The n-stems had -n in all four forms of the plural. The terms for the merger were clear: the n-stems gave up their -n in the singular, the å-stems extended the -n to the remaining forms of the plural. Now, there was a clear distinction between singular (in -e) and plural (in -en).

### 1.6 The s-stems

The s-stems are a very successful “minor” declension corresponding to Latin nouns like *corpus* ~ *corporis* ‘body’. These nouns added the stem-building suffix -es/-os to the root. Between vowels, the s voiced to z and then shifted to r (a common change called “rhotacism” from the Greek letter rho). The forms with r in the singular were lost quite early in analogy to the neuter o-stems. In the plural, they were retained and came to be regarded as a plural marker. The unaccented -ez became -iz in Germanic and caused i-umlaut, which is why modern plurals in -er always umlaut the vowel if possible. Latin has the o-grade of the suffix. Consider:

<table>
<thead>
<tr>
<th></th>
<th>Latin</th>
<th>EOHG</th>
<th>OHG</th>
<th>MHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom.</td>
<td>corpus</td>
<td>kalb</td>
<td>kalb</td>
<td>kalb</td>
</tr>
<tr>
<td>gen.</td>
<td>corporis</td>
<td>kalbiros</td>
<td>kalbes</td>
<td>kalbes</td>
</tr>
<tr>
<td>dat.</td>
<td>corpori</td>
<td>kalbiro</td>
<td>kalbe</td>
<td>kalbe</td>
</tr>
<tr>
<td>acc.</td>
<td>corpus</td>
<td>kalb</td>
<td>kalb</td>
<td>kalb</td>
</tr>
<tr>
<td>nom.</td>
<td>corpora</td>
<td>kalbir</td>
<td>kelbir</td>
<td>kelber</td>
</tr>
<tr>
<td>gen.</td>
<td>corporum</td>
<td>kalbira</td>
<td>kelbiro</td>
<td>kelber</td>
</tr>
<tr>
<td>dat.</td>
<td>corporibus</td>
<td>kalbirum</td>
<td>kelbirum</td>
<td>kelbern</td>
</tr>
<tr>
<td>acc.</td>
<td>corpora</td>
<td>kalbir</td>
<td>kelbir</td>
<td>kelber</td>
</tr>
</tbody>
</table>

Although the s-stems were at first confined to a handful of nouns (a half dozen in the oldest stage of the language), they very quickly spread. In the OHG period more than twenty o-stems joined this group. Currently, there are more than one-hundred. The -er plural may owe its success to the fact that, in OHG and MHG, neuter o-stems had no ending in the nominative and accusative plural: das wort, die wort. (This explains expressions like vier Bier, sieben Stück, fünf Pfund, analogically extended to the masc. fünf Fuß, but not fem. fünf Flaschen Bier.) In search of a distinctive plural, wort adopted both the -e of the masculine and the -er of the s-stems (die Worte ‘connected speech’, die Wörter ‘collection of words’).

While the original s-stems were only neutrals, a number of masculines have now joined the club: Mann, Gott, Wurm, Wald, Geist, Leib, Rand, etc.

### 1.7 The -ter stems – family relationships

Family relationships form a particularly intriguing group of nouns with the stem-building element -ter. In German, we find Mutter, Vater, Bruder, Schwester, Tochter. Schwester has gone over to the weak declension (joining most feminines) and the others have gone over to the i-declension with umlaut in the plural.
1.8 Root nouns (consonantal declension)
A handful of nouns append the ending directly to the root without benefit of a suffix. These include Nacht, Fuß, Nuss, Burg (cf. Lat. pēs ~ pedis < *peds ~ *pedis ‘foot’). The first three have gone over to the i-declension (but compare Weihnachten < zu den wöchen nachten, with the original stem vowel). The last has joined the feminine declension in -n.

1.9 The -s plural
The nominative plural in -s (English day ~ days) was supplanted by the accusative in OHG (taga ~ taga). The modern plural in -s is a relatively modern import from Low German (with support from French and English). It is used with personal names: Schmidts erwarten Besuch. Since the sixteenth century it has been popular with words ending in a liquid or nasal, e.g., die Mädels, die Bengels, die Junges. It is also used to form the plural of foreign nouns ending in a vowel: Autos, Wodkas, etc.

1.10 The German noun declension – first aid
Despite the complications outlined above, it is always possible to derive the declension of a German noun from three basic forms: nom. sg., gen. sg., nom. pl. These are the forms generally listed in the dictionaries. The system is based on a number of universally valid generalizations:

1. The neuter nominative and accusative are always identical. Thus, from das Auge, -es, en the full declension is clear. Singular: das Auge, des Auges, dem Auge, das Auge. Plural: die Augen, der Augen, den Augen, die Augen. Only the genitive singular takes -s, the entire plural takes -n.

2. The dative plural always takes -n – if the nominative plural does not end in -n or -s. Thus, der Tag, -es, -e. Singular: der Tag, des Tages, dem Tag, den Tag. Plural: die Tage, der Tage, den Tagen, die Tage. The same goes for nouns that end in -er in the plural: den Männern, Dächern, etc. Many already have an -n in the plural, so no extra -n is added: die Damen, die Buben. After -s, no -n is possible: die Autos, den Autos.

3. Weak feminines have the pattern: die Lampe, -e, -en: die Lampe in the singular, die Lampen in the plural.

4. Weak masculines have the pattern: der Bube, -en, -en: der Bube, des Buben, dem Buben, den Buben. Plural: die Buben, etc.

5. A few nouns are of the “mixed” declension: singular strong, plural weak: das Ohr, des Ohr(e)s, dem Ohr(e); die Ohren, etc.

6. A few common nouns are irregular: das Herz, -ens, en: das Herz, des Herzens, dem Herzen, das Herz. Plural: die Herzen, etc. Also worth mentioning: der Herr, -n, -en: der Herr, des Herrn, etc. Plural: die Herren, etc.

7. In Middle High German, one-syllable masculines and neuters had the dat. sg. ending -e. This is preserved in a few expressions like: heutzutage ‘these days’, zu Hause ‘at home’.

Numerous other tips are available in the Chapter on gender. Also note the more detailed table and the accompanying summary in the appendix.
Chapter 7: Gender

1 Gender and domination

One of the most dismaying features of the German language for speakers of English is the seemingly irrational gender system. As English demonstrates, three genders for the article (der, die, das) are too many. Even the Germans cannot maintain this in the plural, where there is only one form for all three genders. Furthermore, the assignment of genders to nouns seems highly arbitrary. As Mark Twain complained in his essay “The Awful German Language,” the word Mädchen ‘girl’ is neuter, while Rübe ‘turnip’ is feminine!

Let us begin our investigation of gender with a definition – Gender is a relationship of dominance between a noun, its modifiers and substitutes.

In English, this relationship is expressed solely by pronoun substitution, e.g., Do you know my father? Yes, I spoke to him yesterday. If we substitute mother for father in the previous exchange, the referring pronoun will be her, not him. Not all languages have this device.

An additional form of domination is found in languages like Spanish and German, where the noun determines the form of the article (and other determiners) and the adjective. This is clearer in Spanish because case is not involved: la muchacha es fea ~ el muchacho es feo ‘the girl/boy is ugly’. Notice that the feminine ending -a demands the identical ending on the article and the adjective. In the masculine, the o-ending on the noun demands the same for the adjective and also determines the choice of el for the article.

2 Natural and grammatical gender

What we have seen above are instances of natural and grammatical gender. Natural gender corresponds to our notions about the practical world – fathers are male and mothers are female. Grammatical gender, on the other hand, is a purely formal device that has nothing to do with sex.

In our Spanish example above, the two forms of gender overlap, but we also have: el cuarto es feo ~ la habitación es fea ‘the room is ugly’. Now, there really is nothing about a room that qualifies it as male or female or, as we see from the example, both! The basis for the selection is purely formal: nouns that end in -o are grammatically
masculine and take masculine articles and adjective endings. Similarly, nouns that end in -ion are always feminine and dominate accordingly. We will return to this matter below. But first:

3 Where does gender come from?

In the case of natural gender, we seem to be on fairly solid footing: der Vater, die Mutter, das Kind (neuter – neither one nor the other – because it could be a boy or girl) correspond to observations about the practical world. “But, the main problem remains, why is this classification extended to all words, even where it is not possible to see any connexion with natural sex?” (Jespersen, Philosophy of Grammar, 1924:228).

Early students of the matter were inclined to see the vivid imagination of the “primitive” Germans as the cause for the extension of gender to inanimate objects. They looked at the mighty masculine tree and called it der Baum, similarly they observed the fragile flower with its feminine characteristics and called it die Blume.

Despite a certain poetic appeal, it should be clear that this approach simply won’t wash. For one thing, the specific names of most trees are feminine: die Eiche, ‘oak’, die Buche, ‘beech’, die Esche, ‘ash’, etc., and Old English treow ‘tree’ is neuter. For another, we have numerous doublets like der Raum ~ das Zimmer ‘room’ and triplets like der Ozean ~ die See ~ das Meer ‘ocean’, not to mention cross linguistic comparisons: Why should vodka be feminine in the Russian imagination, but masculine in German?

3.1 Nomen est omen

A major source of confusion about the nature of gender was occasioned by unfortunate nomenclature – nomen est omen ‘the name is a sign’. The Greek and Latin grammarians of classical antiquity noticed that in the noun classes that demanded the adjective ending -us in Latin (here we will confine ourselves to Latin examples) included many words with male natural gender: dominus malus ‘a bad master’, pater malus ‘a bad father’. Similarly, some nouns that required the a-ending on adjectives were “naturally” feminine: domina mala ‘a bad mistress’, mater mala ‘a bad mother’. Of course, the vast majority of the words in these classes had no connection whatsoever with natural gender. The neuter class did not correlate with natural gender at all, hence the designation ‘neuter’ ‘neither one nor the other’.

This classification of the entire vocabulary on the basis of the natural characteristics of a handful of words skewed the discussion of gender for nearly two-thousand years. The task was seen as explaining how natural gender was projected onto words that had no connection to sex whatsoever – unfortunately, a false definition of the problem.

Dionysius Thrax (170 - 90 BC), who is credited with compiling theoldest grammar in the Western World, tells us straight out that Greek has three genders: “masculine, feminine and neuter.” He adds that some grammarians would add two further categories: dual gender for words like ho hippos ~ he hippos ‘the horse’, where the same noun form is used with masc. and fem. articles, and the “epicene” or common gender for words which have a single form for both sexes, cf. German der Frosch ‘frog’ (Ahrens, I:23).

Aelius Donatus (fl. 354 AD) is widely regarded as the father of Latin school grammar. In his dialog on the parts of speech, he tells us that Latin has four genders, adding the “common” gender to the triumvirate. This is nothing but Dionysius’ “dual gender.” But, then as an afterthought he adds the “epicene” for words with one form for both sexes (der Frosch) and an unnamed category for Lat. nominalized adjectives that have one form for all three genders, cf. Ger. der, die, das Glückliche (Lat. felix).

3.2 Problems of evidence

In all fairness, it should be pointed out that a better solution to the problem was simply not obvious on the basis of the available evidence from the Indo-European languages. Nevertheless, at the beginning of the twentieth century, Karl Brugmann recognized that the problem was not one of expansion of the natural gender system. In his Kurze Vergleichende Grammatik der indogermanischen Sprachen he notes:

Schliesslich die Frage, wie sich das grammatische Geschlecht und die Formantien für natürliches Geschlecht genetisch zu einander verhalten. Dass letztere nicht von Anfang an nur für den Sexus da waren und nicht erst infolge von einer Art poetischer Übertragung männlicher und weiblicher Eigenschaften der Lebewesen auf die Dinge überhaupt sich weiter verbreitet haben, scheint sicher.

Finally, there remains the question of how grammatical gender and the formants for natural gender are genetically related. It seems certain that
the latter were not there from the beginning as an indication of sex and that masculine and feminine qualities were not then transferred from animate beings to objects as some kind of poetic projection. [1903:361]

Hermann Hirt in his Indogermanische Grammatik, Teil III (1927: 321) takes the position that the three genders of Indo-European were in no way original, but rather a development from a state where there was no gender marking at all as is the case in Hungarian. This happy state might be preserved in the personal pronouns ich, du, wir, ihr which do not indicate natural gender.

We can attempt to gain insight into this problem by considering the structure of non-Indo-European languages under the not unreasonable assumption that grammatical devices are fairly universal and what we find in one place may have played a role in the prehistory of another language family, even if there is scant existing evidence to support it.

3.3 Gender and classifiers

As we have seen, grammatical gender is arbitrary except in those few cases where it corresponds to natural gender. Classifiers, on the other hand, have a much more direct relation to the practical world. To illustrate the concept, let us take a few examples from English, where classifiers play a rather peripheral role – mostly as measures of quantity. Consider the classifier glass as in a glass of milk, a glass of wine, but not *a glass of soap. You would never ask for a glass of soap, would you? Similarly, we have a bottle of milk, wine, soap, but not *a bottle of sand. The classifier bottle is only valid with liquids that are usually packaged in bottles. Somewhat subtler is bunch. You can ask for a bunch of bananas or a bunch of grapes, but hardly for *a bunch of apples. Evidently, bunch, at least as applied to fruit, only indicates fruit that hangs from a common stem.

In other languages, however, classifiers play a far more important role. In Thai, for example, there are upwards of eighty classifiers that are in constant use – not just with quantifiers. Some examples: grabork for tubular objects like guns, pipes, tubes; gorng for shapeless masses like lumps, stones, pieces of cake, clouds; kun for vehicles (other than ox carts), etc. The semantic connection is clear here.

The next step in the evolutionary development of gender is nicely illustrated by the Bantu languages like Swahili. Swahili has eight classifiers which are considerably less transparent than their Thai counterparts. The interesting feature is that the classifier is not limited to the noun but is copied onto adjectives and even the verb. For example, the ki-class indicates inanimate objects (things without life). Thus, the word for knife is ki-su. The sentence One knife was sufficient is rendered as: Kisumimojaku tilotsha. The dominating noun is kisu. The numeral -moja ‘one’ agrees with the noun and takes the same prefix ki- Similarly, the verb can be analyzed into ki-tilotsha, where li is the past tense marker and tilotsha ‘to be sufficient’ the stem. Here we see the device of concord or agreement as in Spanish la muchachafea.

The evidence for classifiers in Indo-European is scant. The most likely candidate for a classifier is the suffix -ter found in the words for immediate family members regardless of gender, Lat. pater, mater, frater ‘father, mother, brother’. These can be analyzed into pa+ter, ma+ter, fra+ter, where the element -ter is a classifier. The origin of the roots pa- and ma- is obvious. If you hadn’t figured it out, ask your papa or your mama. The root in frater ‘brother’ is obscure. (Here we should mention in passing that sister does not seem to belong to this group, the -ter being a special development in Germanic not shared by the other Indo-European languages, cf. Lat. soror, but we can add daughter, Gr. thugater.)

3.4 Determinatives and classifiers

One of the peculiarities of Indo-European word formation is the elusive determinative. Determinatives are like -ter considered above, but consist mostly of a single consonant. They are added to a root, but not all languages add the same determinative or add one at all.

Consider Lat. uni-gen-itus ‘only born’. The root *gen- corresponds to PG *ken-, but in German we find Kind ‘child’ with an additional d. Similarly, we can compare Lat. flos with Germ. Blume ‘flower’, both from the zero-grade of IE *bhel- with different determinatives. English has both determinatives: bloom, blossom.

The minimal size of the determiners (mostly one consonant) and their ancient origin makes a semantic interpretation, for the most part, impossible. One intriguing possibility is the determinative -s, which appears in a suspicious number of agricultural terms – particularly in
animal names. Among the s-stems we have: Kalb ‘calf’ pl. Kälber < *kalbis, Rind ‘steer’, Huhn ‘chicken’, Lamm ‘lamb’. OHG farh ‘pig’ and wild ‘game’ also belonged here. Further agricultural terms are: Ei ‘egg’, Feld ‘field’, Holz ‘wood’, Blatt ‘blade’, Reis ‘twig’ (all of which have retained the s-stem plural). In addition, we have a number of animal names where s is a stem determinative: Gans ‘goose’, Lachs ‘salmon’, Dachs ‘badger’, Luchs ‘lynx’, Fuchs ‘fox’, these are mostly i-stems with unumlaut plurals.

For some additional speculation, see the Appendix “Seven Ways to Form the Plural.”

3.5 The decline and fall of the classifier

Assuming that we are on the right track, the Indo-European classifier system declined further beyond the stage presently reached by Swahili until formal criteria mostly replaced semantic criteria (if it ends in -a, it’s feminine). Inssofar as meaning plays a role in determination of form at all, the gender distinctions are reduced to common (masculine and feminine) versus neuter. This is the stage observed in the oldest recorded Indo-European language – Hittite. A remnant of this two-gender system is preserved in the German interrogative pronoun wer (cf. er), which is masculine in form but covers both males and females and contrasts with inanimate was. Later a separate feminine is formed in the other Indo-European languages.

Except for the absence of a separate feminine, the situation in Hittite (ca. 1650 B.C.) is much like that encountered Classical Latin and Greek. Adjectives agree with their nouns in gender, case and number and adjective and noun are each loyal to their own particular declension. There is, to be sure, a huge gap between the earliest recorded stage and the putative classifier stage, one which, unfortunately, cannot be bridged with documentary evidence.

The conceptual difficulty with this theory is the natural tendency to think that, where a difference in form exists, there must be a difference in meaning or function. But, as Sapir (Language, 1921:98) pointed out “form tends to linger on when the spirit has flown.” We are left with three mostly arbitrary genders and seven different ways to form the plural of nouns.

4 Natural and grammatical gender in German

As mentioned above, English only has natural gender. Persons are referred to as he or she, everything else is it. A last remnant of grammatical gender may possibly be seen in the default assumption that a dog whose sex we do not know is a male (cf. der Hund) and that a cat is probably female (cf. die Katze), same genders in Old English.

A major difficulty for native English speakers learning German lies in getting used to the idea that in German grammatical gender is predominant – even for living creatures. This may be illustrated by the following anecdote:

Early one morning, a student who was supposed to come to my office later in the day called me up in tears. She had to cancel our appointment because she had to take her bird to the veterinarian. I asked what the problem was and she replied: Er hat Ei(en). I asked what that was and she said: Er kann sein Ei nicht legen ‘He can’t lay his egg’. Then she paused and said: Warum sage ich eigentlich er? ‘Why am I saying he?’

Under the circumstances, I couldn’t offer her an impromptu lecture on grammatical gender in German, but the answer is clear: Vogel is grammatically masculine, hence the pronominal reference er even though she was clearly referring to a female bird.

Probably, the best (and least confusing approach) to the question of gender is to consider natural and grammatical gender as two different categories that share common features like the selection of the article. For grammatical gender, we can retain the common designations: masculine, feminine and neuter – provided that we recognize that these terms have nothing to do with sex (or does your mom remind you of a fork die Mutter ~ die Gabel and your dad of a spoon der Vater ~ der Löffel). For natural gender, we can divide nouns into five categories, male, female and neutral (Vater, Mutter, Kind) and two additional categories: epicene and unmarked.

Epicene applies to the names of animals for which there is only one word, e.g., Frosch ‘frog’, Kröte ‘toad’. Frosch is grammatically masculine (der Frosch) and Kröte feminine (die Kröte). But, there is no grammatical form for a female frog or a male toad. This contrasts with unmarked, where either the male or female term is used for the animal in general and a suffixed marked term is used for the other sex,
e.g., *die Katze* ‘cat’ ~ *der Kater* ‘tom cat’, *der Hund* ‘dog’ ~ *die Hündin* ‘female dog’. We can summarize this in the following chart:

<table>
<thead>
<tr>
<th>Category</th>
<th>Gender</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>masculine</td>
<td>Hahn ‘rooster’</td>
</tr>
<tr>
<td>female</td>
<td>feminine</td>
<td>Henne ‘hen’</td>
</tr>
<tr>
<td>neutral</td>
<td>neuter</td>
<td>Huhn ‘chicken’</td>
</tr>
<tr>
<td>epicene</td>
<td>all</td>
<td>Giraffe ‘giraff’</td>
</tr>
<tr>
<td>unmarked</td>
<td>male/female</td>
<td>Fuchs ‘fox’, Maus ‘mouse’</td>
</tr>
</tbody>
</table>

With humans grammatical gender prevails within a sentence, but natural gender is more general if the reference runs over two or more sentences. Thus, *Wo ist das Mädchen, das ihm die Blumen überreicht hat? Sie/es gibt gerade der Presse ein Interview ‘Where is the girl who handed him the flowers? She/it is giving the press an interview’.*

With inanimate objects grammatical gender is used: *Wo ist meine Bahnkarte? Sie liegt auf dem Tisch ‘Where is my rail ticket? She is on the table’. Wo ist mein Füller? Er liegt auf dem Tisch ‘Where is my fountain pen? He is on the table’. Wo ist mein Glas? Es steht auf dem Tisch ‘Where is my glass? It is on the table’.*

5 Of maidens and turnips - rules for German gender

Let us turn now to Mark Twain’s complaint that *Mädchen* is neuter and *Rübe* feminine. Fortunately, we are not completely at sea in determining the gender of German words. Most of the time it is possible to guess the correct gender (and plural) on the basis of purely formal criteria. For example, *Mädchen* is neuter because all words that end in the suffix *-chen* are neuter and grammatical gender takes precedence over natural gender. *Rübe* is feminine because almost all inanimates that end in *-e* are feminine. We will note exceptions below.

In the following sections, we will outline practical rules for determining the gender of German nouns. It will seen that some are more practical than others. That is some rules are hard and fast. Nouns with the suffix *-chen* are neuter without exception and the suffix overrides all considerations of natural gender. Others admit a few exceptions that are easily noted, e.g., inanimates ending in *-e* are almost exclusively feminine (there are a few exceptions to remember: e.g., *das Ende ‘end’, der Käse ‘cheese’*). Some simply narrow the possibilities. For example, nouns ending in *-nis* are either feminine (*die Erkenntnis ‘insight’*) or neuter (*das Ergebnis ‘result’*) – at least masculine can be ruled out and both groups take the plural *-nisse*. Some nouns can take more than one gender *der/das Teil ‘part’* with subtle difference in meaning at best. Others have radically different meanings *die Steuer ‘tax’, das Steuer ‘rudder’*. Semantic criteria also play a role, e.g., the days of the week are all masculine. All in all, it is an interesting mine field. Let us step gingerly.

5.1 Semantic classes

Here we will be concerned with gender assignment according to semantic classes which do not fall under the category of natural gender. That is, it is hardly surprising that most nouns indicating female individuals are feminine, but there is no particular reason why most (but not all) river names should be feminine. *Prokosch* 1938:31 points out that most masculine European river names are of Celtic origin: *der Rhein, Main, Neckar, Inn, Lech, Regen*, etc. To these we can add foreign rivers: *der Amazonas, Mississippi*, perhaps under the influence of *der Fluss*.

Masculine:

1. Days of the week of the week. Expected as six of seven are compounded with *-tag*. *Mittwoch < Mitte + Woche* should really be feminine, but has become masculine by analogy with the other six days.

2. The months of the year (perhaps from *der Monat*).

3. The seasons *der Winter, Frühling* (but *das Frühjahr*, from *das Jahr*).
4. The points of the compass: der Norden, Osten, etc.
6. Individual mountains: der Mt. Everest, Mt. McKinnley (but not mountain ranges, see below under collectives)
8. Alcoholic beverages: der Wein, Kognak, Vodka (Wein altered from the Lat. neut. vinum, Kognak from French le cognac, Vodka by analogy to der Schnaps.) But, das Bier.

Feminine:
1. The names of ships and airplanes: die Stockholm, Andrea Dorea, Boing 707.
2. The names of trees and most flowers: die Eiche ‘oak’, Buche ‘beech’, die Rose, Tulpe, Nelke ‘carnation’.
3. The names of numbers: Er hat eine Eins, Zwei, Drei gekriegt ‘He got a one, two, three (= A, B, C).
4. Most German river names: die Elbe, Isar as well as foreign river names ending in -e or -a: die Wolga, Themse. The rest are masculine: der Rhein, Main (Celtic origin), Amazonas, Mississippi.

Neuter:
1. Most chemical elements: das Kupfer, das Radium, das Chlor (but those compounded with der Stoff are naturally masculine: der Sauerstoff ‘oxygen’, Wasserstoff ‘hydrogen’. Also note der Phosphor, Schwefel ‘sulfur’.
2. Properly, metric terms: das Liter, Meter (in actual usage, mostly masculine because of the -er ending).
3. Letters of the alphabet: das A und O.
5. Names of most countries: das schöne Italien. Note that with neuter countries the article is not used unless an adjective is present: Italien ist ein schönes Land. Prominent exceptions: die Türkei, Schweiz; die Vereinigten Staaten, USA (plural!), der Irak, Libanon.
6. The names of the continents: das alte Europa, but die Antarktika.
7. The names of cities regardless of normal grammatical gender: das schöne Hamburg (despite die Burg ‘fortress’), das alte Frankfurt (despite die Furt ‘ford’).

5.2 Gender based on formal criteria
In the following section, we will consider rules for gender based on formal criteria (word ending). Where enlightening, we will explain the origin of the forms. Note that the application of the criteria depend to a great extent on proper analysis of the form involved. Thus, agent nouns like Lehrer ‘teacher, someone who teaches’ are always masculine, but this does not mean that all nouns that end in -er are agent nouns and thus masculine, e.g. die Kammer < Lat. camera ‘room’, feminine in Latin, is feminine in German as well. With this in mind:
Masculine:

1. -er: Agent Nouns (words indicating the doer of an action) in -er always masculine: der Arbeiter ‘worker’, Briefträger ‘letter carrier’, Straßenfeger ‘street sweeper’. The suffix -er < OHG -ari was an early borrowing from Latin -arius, hence masculine. The tools used for doing something also have this ending although from a different source: der Toaster, Wäscher < Low German ‘clothes dryer’, Hammer < OHG hamar. This accounts for prominent exceptions: die Klammer ‘clamp, clip’, die Leiter ‘ladder’. (For more about agent nouns, see below under gender of foreign nouns. For the feminine agent noun suffix -in see below under gender “motion.”)

   The suffix is also used to indicate a resident of a city: der Berliner, Hamburger, Münchener.

   Miscellaneous nouns in -er, which are hard to classify, are also masculine: der Fehler ‘mistake’, Rülpser ‘a burp’ but also as agent noun ‘someone who burps’! These can still be analyzed as: stem + -er.


2. -el: Nouns denoting tools are mostly masculine: der Schlüssel ‘key’ < OHG slussil (hence umlaut), Hebel ‘leever’, Hobel ‘plane’, Löffel ‘spoon’.


3. -en: Nouns in -en that are derived from infinitives are neuter (see below), most of the others are inanimate masculine n-stems which generalized the n-ending to the nom. sing. Thus, OHG garto > MHG garte > NHG Garten. These then form a new genitive in -en (des Gartens). Some of these go over to the i-stems in the plural: die Gärten, others do not: der Bolzen ~ die Bolzen ‘bolt’. Others have simply not made up their minds: der Bogen which both plurals, the umlaut plural being favored in the south (Upper German). Those from other sources, e.g., der Hafen ~ die Häfen borrowed from Low German, simply join the club. There are also a number of neuters not derived from infinitives: das Becken ‘basin’, Kissen ‘pillow, cushion’), Laken ‘bed sheet’, Zeichen ‘sign’.

4. -e: The animate n-stems with natural gender retain the old Middle High German declension (-e in the nom. sing., -n in all other cases of the singular and plural): der Junge, Bube ‘boy’, Preuße ‘Prussian’, Russe ‘Russian’; also animals: der Löwe ‘lion’.

5. Verb stems: Nouns formed from verbs by dropping the infinitive ending -en are masculine. Most of these have the zero-grade of the stem: springen ~ der Sprung ‘jump’, beißen ~ der Biss ‘bite’, fliegen ~ der Flug. The plural takes umlaut: die Sprünge, Flüge. Others are o-grades: Trank, as well as Trunk ~ trinken ‘drink’, also Dampf ‘steam’, Klang ‘sound’, (Ge)stank ‘stink’, Zank ‘strife’. These also have umlaut plurals: Dämpfe, Klänge.

For further masculines, see below under gender of foreign words.

Feminine:

1. -e: Inanimate nouns in -e are feminine and take the plural -en: die Rübe ‘turnip’, Lampe ‘lamp’, Stube ‘room’ (related to Eng. stove originally ‘the heated room’).
In addition, abstract nouns derived from verb stems: die Frage ‘question’, Bitte ‘request’ and abstract nouns formed from adjectives (OHG -i), die Röte ‘red’, Güte ‘goodness’, Härte ‘hardness’ also belong here.
Finally, some animates (many borrowed from French) which are clearly female: die Dame ‘lady’, Cousine ‘cousin’, Amme ‘wet nurse’, Kebs ‘mistress’ (obsolete).
In general, if a noun in -e does not fulfill the conditions for a masculine n-stem, it will be feminine. Prominent exceptions: der Käse ‘cheese’, das Auge ‘eye’, Ende ‘end’.
Unfortunately, the converse does not hold. Regular sound change eliminated the final -e in one syllable words ending in a liquid (r.l) or a nasal (m, n) after a short vowel. So, OHG zala, turi > MHG zale, türe, modern die Zahl ‘number’, die Tür ‘the door’ (cf. archaic die Türe). OHG scama, pina > die Scham ‘shame’, Pein ‘pain’. In the third syllable, -e was eliminated as well. OHG fedara > die Feder ‘feather’, die Achsel ‘armpit’, die Schulter ‘shoulder’ also belong here.

2. -ung,-heit/-keit,-schaft: These suffixes, corresponding to English (-ing, -hood, -ship) are all used to form abstract nouns from concrete nouns: Kind ~ Kindheit ‘child ~ childhood’, adjectives: ähnlich ~ Ähnlichkeit ‘similar ~ similarity’ or verbs: lösen ~ Lösung ‘solve ~ solution’. They take the usual feminine plural in -en. The suffix -keit follows -ig, -ich, -isch, -m: Traurigkeit ‘sadness’, Fröhlichkeit ‘cheerfulness’, Linkisheit ‘awkwardness’,

The German Language – A Guide for Inquisitive Students

Neuter:

1. -chen, -lein: These suffixes and numerous variants from the dialects: Low German -kin, Upper German -le, are usually classified as “diminutive” suffixes – ones that indicate a smaller version of the original. This is not to be taken literally. When applied to animals, the terms Männchen and Weibchen simply mean ‘the male’ and ‘the female’ and serve equally well for whales as for mice. Some times the meaning is affective: Bübchen is simply more affectionate than Bube ‘little fellow’. Be this as it may, all nouns with this suffix are neuter and do not change in the plural. Note that the addition of the suffix causes umlaut: Bube ~ Bübchen, Buch ~ Bächlein.

2. -nis: Thus suffix (= Eng. -ness) forms abstract nouns from adjectives (finster ~ Finsternis ‘dark ~ darkness’), participles (gefangen ~ Gefängnis ‘captured ~ prison’), nouns (Ärger ~ Ärgernis ‘trouble ~ nuisance’) and verbs (erlauben ~ Erlaubnis
5. Infinitives and other parts of speech: Infinitives used as nouns are always neuter: das Schen und Hören ‘seeing and hearing’. Similarly, prepositions: das Für und Wider ‘the pros and cons’. Adjectives can also be made into nouns: das Gute und das Schlechte, ‘the good and the bad (aspects)’. Notice the difference between das Gute ‘the good aspect of something’ and die Güte ‘kindness, goodness’. Note too, that the construction with the neuter is “productive” – can be applied to virtually any adjective whereas the feminine abstract noun can only be made from a limited set of adjectives.

6. Collective nouns in ge-:
As the name implies, collective nouns denote collections or sets of objects considered as a whole. Compare der Berg ‘mountain’ with the collective das Gebirge ‘mountain range’ (< OHG gibrigi with vowel harmony) or das Hirn ‘brain ~ brains’, der Schrei ~ das Geschrei ‘cry ~ tumult’. Some further examples: das Gebiss (‘set of teeth’), künstliches Gebiss ‘dentures’, die Gebrüder (plural) Karamasow ‘the brothers Karamazov’. In some cases the collective sense is not so clear: das Gemüt ‘state of mind (dependent on many factors), Gefängnis ‘prison – place where prisoners are collected’, Gebiet ‘territory’.

All of the examples we have considered so far are neuter as are the vast majority of collectives. There are, however, a substantial number of important exceptions. Some nouns with the prefix ge- are not collectives, but “sociatives,” indicating association referring to persons. These are masculine: der Geselle ‘apprentice, originally roommate’, Gesährte ‘traveling companion’, Genossen ‘comrade’, originally ‘cattle-sharer’. These are masculine n-stems (der Genosse, des Genossen) and form feminines with the suffix -in, hence the familiar SPD greeting at mass meetings: Liebe Genossinnen und Genossen.

There are other masculines that decline strong. Some are derived from verb stems: brauchen ~ Brauch ‘custom’ ~ der Gebrauch ‘use, application’, gewinnen ‘win’ ~ der Gewinn ‘profit, winnings’. Others from nouns (themselves derived from verbs): riechen ‘to smell’ ~ der Ruch ‘odor (figurative)’ ~ der Geruch ‘odor (sensory)’. Der Stank (also Stunk) ‘odour’ ~ der Gestank ‘stench’. Sometimes there is no associated noun without the prefix ge-: der Genuss ‘enjoyment’ < genießen, der Gefallen ‘favor’ < gefallen ‘to please’, der Gehalt ‘quantity’ as in Alkoholgehalt ‘quantity of alcohol in (a drink)’ < enthalten ‘contain’, der Geschmack ‘taste’ < schmecken. And last, but not least, a very important word – der Gehorsam ‘obedience’.

There are also feminines in this group. These can generally be recognized by the -t(e)- ending used to form abstract nouns as discussed above: die Gemeinde ‘community < gemein ‘common’, die Gebäude ‘gesture’, die Geduld ‘patience’ (the verb dulden ‘tolerate’ is
derived from the noun), die Geschichte 'history', die Geburt 'birth', die Gestalt 'form', die Gewalt 'power', violence', die Geschwalts 'swelling. Without suffix: die Gefahr 'danger (not from fahren!)', die Gebühr 'fee', die Gewähr 'guarantee'.

7. Gender of foreign words

We can divide foreign loan words into roughly two groups on the basis of gender: (1) Those which take their gender from the source language. These are usually more recent loan words and have a predictable gender on the basis of the word ending. For example, die Diversität 'diversity' is actually a loan from English (perhaps French), but, like all nouns of this origin, adopts the Latin stem seen in the genitive: diversitas (nom.), diversitatis (gen.) and the Latin gender (feminine). So, all German words in -ität are feminine and take the -en plural: die Aktivität ~ die Aktivitäten. (2) Ancient and modern loan words that do not follow their source in gender. For example, das Fenster 'window' (neuter) < Lat. finestra (feminine), or das Layout 'lay-out' from English, where no grammatical gender is available.

7.1 Gender from source language

In the following, plurals in -e indicate "strong" nouns with genitive singular in -es: das Sekretariat, des Sekretariats, die Sekretariate. Plurals in -en are generally "weak": der Intendant, des Intendanten, die Intendanten 'theater director'. The “mixed” declension is indicated: der Professor, des Professors, die Professoren (gen. sg. -s, plural -en).

7.1.1 Masculine

Masculine endings mostly referring to persons (predominantly French and Latin origin): -ant, -är, -ät, -ent, -et, -eur, -ist, -ologue, -or, -us: der Demonstrant 'demonstrator' (plural -en), Kommissar 'commissioner' (plural -e) (see neuter below), Aktionär 'stock holder' (plural -e), Soldat 'soldier' (plural -en) also Apparat 'apparatus' (plural -e), Absolvent 'graduate' (plural -en), Athlet 'athlete' (Greek, plural -en), Ingenieur 'engineer' (plural -e), Pazifist 'pacificist' (plural -en), Astrologe 'astrolger' (plural -en), Doktor 'doctor' (gen. sg. -s, plural -en), Organismus 'organism' (plural -en).

Note that not everything that ends -us is a masculine o-stem. There are a number of neuter s-stems that retain their Latin plural: das Tempus ~ die Tempora 'time, tense', Genus ~ Genera 'gender'. Latin campus is a u-stem, and remains unchanged in the plural: der Campus ~ die Campus. Note also das Virus, die Viren (sing. mostly masc.).

7.1.2 Feminine

Feminine endings (predominantly Late Latin and French, plurals in -en): -e, -at, -anz, -enz, -ie, -ik, -ion, -ur: die Courage 'courage', Diversität 'diversity' (see discussion above), Dominanz 'dominance' (Lat. dominantia, ti > z). Referenz 'reference' (Lat. referentia, ti > z), Industrie (Lat. industria), Ethik 'ethics' (Greek), Kondition 'condition' (like Spanish, derived from Latin feminine n-stems, 'condition').

7.1.3 Neuter

Neuter endings (Latin, Greek, French, Italian): -ar, -at, -ett, -il, -ma-, mm, -o, -ment, -um: das Seminar 'seminar' (Latin, plural -e), Konsulat 'consulate' (Latin, plural -e, but see above under masculine), Duett 'duet' (French diminuitive, plural -e), Exil 'exile', Thema 'topic, theme' (Greek, gen. sg. -s, plural in -en), Programm 'program' (Greek via French, plural in -e), Konto 'account' (Italian, gen. sg. -s, plural -en, -s), Argument 'argument' (Latin, plural in -e), Museum 'museum' (Latin, gen. sg. -s, plural in -en), Praktikum (Latin, gen sg. -s, plural in -a).

7.2 Gender from other sources

Aside from the "learned" words considered above, introduced by scholars who were well aware of their origin and original gender, there is a considerable mass of popular words that have entered the German language. Many of these are from English (which provides no guidance as to grammatical gender) and other means are necessary in order to assign them to a gender and plural class.

One criterion is phonological, for example, words ending in -e, -o (mostly from Italian) are generally neuter and form their plurals mostly in -s: das Tempo (Tempo ~ Tempi), Konto (Kontos ~ Konten), Andante (Andantes), similarly Moto, Foto, Ghetto, Auto (<Automobil) all with plural -s.

The dominant principle, however, is gender analogy. The foreign word takes on the gender of a native German word of the same
meaning. Thus, while die Vendetta carries over its original Italian
gender (cf. die Fehde ‘feud’), der Vodka (Russian feminine) takes its
gender, by analogy, from der Schnaps. And it is not just das Mädchen
that is neuter – das Showgirl follows suit, die Mail-Order has its gender
from Bestellung, der Lift ‘elevator’ from der Aufzug, das Internet, from
das Netz.

Sometimes there is more than one available analogy. E-Mail, for
instance, could take its gender from der Brief or die Post, but there
seems now to be general agreement on feminine gender. This principle
extends to made-up, pseudo-English words like der City-Call (English
local call) from der Anruf, and das Handy (English cell phone) from
das Telefon.

Analogy also explains the some of the differences between German
gender and the gender of older loan words from Latin: der Körper (Lat.
corpus, -oris neuter) from der Leib ‘body’, die Nummer (Lat. numerus,
Ital. numero masculine) from die Zahl ‘number’, der Anker ‘anchor’
(Lat. ancora feminine) from der Haken ‘hook’.

7.3 Problems of composition

German compound words take their gender from the last part of the
compound, regardless of natural gender. Thus, from ober ‘upper’ + das
Haupt ‘head’, we get das Oberhaupt (der Familie). The individual
referred to (‘the head of the family’) is certainly male or female, but
Haupt is neuter. Similarly, from das Haupt + die Bahn + der Hof, we
gew der Hauptbahnhof ‘main train station’.

Compounds with der Mut ‘courage’ (originally ‘state of mind’ cf.
Eng. mood) are either masculine: der Hochmut ‘arrogance’, Edelmüt
‘noble-mindedness’, Unmut ‘displeasure’, Gleichmut ‘equanimity’, etc.
or feminine: die Anmut ‘grace’, Demüt ‘humility’, Großmut ‘grandmüt’,
Magnanimität, Sanftmut ‘gentleness’, Schwermut ‘melancholy’,
Wahnmut ‘melancholy’, etc. Here it is tempting to speculate about
“typical” male vs. female characteristics as a key to the choice of
gender.

Another problem case is the common word Teil and its compounds.
There is a subtle difference in meaning here: der Teil means ‘part of
a whole’ (der erste Teil des Romans ‘the first part of the novel’), where
das Teil means ‘share, portion’ (ich habe mein Teil getan ‘I did my
part’), or ‘a part of a whole seen as a separate unit’ (ein defektes Teile
ersetzen ‘to replace a defective part’). These contrasts are reflected in
the choice of gender for compounds – although not always
Nachteil ‘disadvantage, Stadtteil ‘neighborhood’. Among the neuters:
das Anteil ‘share’, Erbe Teil ‘share of an inheritance’, Pflichtteil ‘legally
guaranteed share of an inheritance’, Ersatzteil ‘replacement part’, Abteil
‘railway compartment’, but also Vorderteil ‘front part’, Hinterteil ‘rear
part’, Gegenteil ‘opposite’, Urteil ‘judgement’ where the distinction is
not so clear.

8 Words with two genders

Some words have two different genders. These can be divided into
several groups: (1) Those with more than one gender in standard
German, where no difference in meaning is involved. Sometimes one
form is more common in the north and another in the south, e.g.,
der or das Bonbon (in Austria only neuter). In addition, there is often
specialization for one form or the other in compounds (see the table
below). (2) Related words with different meanings depending on
gender, e.g., das Band ‘band, tie’, der Band ‘volume of a set of books’.
(3) Homonyms (words that are not related, but sound alike and are
differentiated by gender, e.g., der Leiter ‘leader’ < leiten ‘to lead’, but
die Leiter ‘ladder’ from the root *klei- ‘to lean’ (4) Words with slightly
different form, different gender, same or different meaning, e.g.,
die Ecke ‘corner’, das Dreieck ‘triangle’.

Extensive lists of these words are available in the standard
grammars, so we will confine ourselves to a few examples of each type
to illustrate the principles involved.

<table>
<thead>
<tr>
<th>Varying Gender in Standard German</th>
<th>No Difference in Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bereich, der/das ‘area, field’</td>
<td>but: der Fachbereich ‘university department’</td>
</tr>
<tr>
<td>Bonbon, der/das ‘candy’</td>
<td>only das in Austria</td>
</tr>
</tbody>
</table>
### Related Nouns – Different Meanings Distinguished by Gender

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dschungel, der/das/die ‘jungle’</td>
<td>now almost always der (ends in -el)</td>
</tr>
<tr>
<td>Gummi, das/der ‘rubber’</td>
<td>das Gummi ‘rubber band’, der (Radiergummi), ‘eraser’, der (Schutz)gummi ‘a rubber’</td>
</tr>
<tr>
<td>Liter, Meter, etc. der/das</td>
<td>The metric measures should be neuter &lt; Lat. <em>metrum</em>. Usually, masculine because of -er</td>
</tr>
<tr>
<td>Radar, das/der</td>
<td>Technical language, das</td>
</tr>
<tr>
<td>Mündel, das/der/die ‘ward’</td>
<td>Diminutive das, natural gender der/die</td>
</tr>
<tr>
<td><strong>Band, das ‘band, tie’</strong></td>
<td>Band, der ‘volume of a set of books’</td>
</tr>
<tr>
<td><strong>Ekel, der ‘loathing’</strong></td>
<td>Ekel, das ‘loathsome person’</td>
</tr>
<tr>
<td><strong>Erbe, der ‘inheritor’</strong></td>
<td>Erbe, das ‘inheritance’</td>
</tr>
<tr>
<td><strong>Gehalt, der ‘contents’</strong></td>
<td>Gehalt, das ‘wages’</td>
</tr>
<tr>
<td><strong>Hut, der ‘hat’</strong></td>
<td>Hut, die ‘protection, caution’</td>
</tr>
<tr>
<td><strong>Kaffee, der ‘coffee’</strong></td>
<td>Kaffee, das ‘café’</td>
</tr>
<tr>
<td><strong>Maß, das ‘measure, pl. dimensions’</strong></td>
<td>Maß, die ‘liter of beer’</td>
</tr>
<tr>
<td><strong>See, der ‘lake’</strong></td>
<td>See, die ‘sea, ocean’</td>
</tr>
<tr>
<td><strong>Steuer, das ‘rudder, steering wheel’</strong></td>
<td>Steuer, die ‘tax’</td>
</tr>
</tbody>
</table>

### Unrelated Nouns – Different Meanings Distinguished by Gender

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kiefer, der ‘jaw’</td>
<td>Kiefer, die ‘pine tree’</td>
</tr>
<tr>
<td>Leiter, der ‘leader’</td>
<td>Leiter, die ‘ladder’</td>
</tr>
<tr>
<td>Mast, der ‘mast of a ship’</td>
<td>Mast, die ‘cattle feed’</td>
</tr>
<tr>
<td>Messer, der ‘meter’</td>
<td>Messer, das ‘knife’</td>
</tr>
<tr>
<td>Schild, der ‘shield’</td>
<td>Schild, das ‘sign’</td>
</tr>
<tr>
<td>Tor, das ‘gate’</td>
<td>Tor, der ‘fool’</td>
</tr>
</tbody>
</table>

### Slightly Different Form, Different Gender, Same or Different Meaning

<table>
<thead>
<tr>
<th>German</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backe, die ‘cheek’</td>
<td>Backen, der ‘cheek’ (southern), different development of masc. n-stem, OHG <em>backo</em></td>
</tr>
<tr>
<td>Ecke, die ‘corner’</td>
<td>Eck, das in Dreieck ‘triangle’, etc., MHG both genders</td>
</tr>
<tr>
<td>Scherbe, die ‘piece of broken glass’</td>
<td>Scherben, der (southern), both have plural ‘die Scherben’ MHG has both forms.</td>
</tr>
</tbody>
</table>
9 Gender mobility

By gender mobility, we mean the addition of a suffix to turn a grammatically masculine noun into a feminine and vice versa in accordance with natural gender. The most commonly used device of this sort is the suffix -in, used to form female agent nouns from masculines ending in -er: der Lehrer ~ die Lehrerin ‘teacher’, der Straßenfeger ~ die Straßenfegerin ‘street sweeper’. There are some prominent non-agent nouns here too Göttin ‘goddess’, Herrin ‘lady, mistress’, Königin ‘queen’.

The same extension can be used with agent nouns from Latin (see above): in -ist: der Komponist ~ die Komponistin ‘composer’, der Christ ~ die Christin ‘Christian, someone who practices Christianity’, -ar: Refendar ~ Refendarin ‘intern’, -ent: Absolvent ~ Absolventin ‘graduate’, etc.

It is also seen in some animal names: der Hund ~ die Hündin, ‘dog ~ bitch’, Fuchs ~ Füchsin ‘fox ~ vixen’ (vixen is the only remaining word with this suffix in English). Although we can always apply the -in-suffix to agent nouns to form a feminine, this is not the case with animals. Some have only one form: der Frosch ‘frog’, die Schildkröte ‘turtle’. Others have different words for male, female, young animal and general term:

<table>
<thead>
<tr>
<th>Male</th>
<th>Female</th>
<th>Young</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>der Mann</td>
<td>die Frau</td>
<td>das Kind</td>
<td>der Mensch ‘human’</td>
</tr>
<tr>
<td>der Bulle</td>
<td>die Kuh</td>
<td>das Kalb</td>
<td>das Rind ‘cow’</td>
</tr>
</tbody>
</table>

In some cases, the general term is identical to the female and a suffix is used to derive the male:

<table>
<thead>
<tr>
<th>Female/general</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>die Hexe ‘witch’</td>
<td>der Hexer</td>
</tr>
<tr>
<td>die Witwe ‘widow’</td>
<td>der Witwer</td>
</tr>
<tr>
<td>die Katze ‘cat’</td>
<td>der Kater</td>
</tr>
<tr>
<td>die Gans ‘goose’</td>
<td>der Gänserich oder Ganter</td>
</tr>
<tr>
<td>die Taube ‘pigeon’</td>
<td>der Täuberich</td>
</tr>
<tr>
<td>die Ente ‘duck’</td>
<td>der Enterich</td>
</tr>
<tr>
<td>die Maus ‘mouse’</td>
<td>der Mäuserich</td>
</tr>
</tbody>
</table>

To be sure, there are other ways of making the distinction if necessary: der weibliche Elefant ‘the female elephant’ (adjective), der Rehbock ~ die Rehhuh ‘roebuck ~ doe’ (compound), but we will leave these to the game hunters.

Notice too, that the derivatives are not all of equal importance. In German culture the difference between witch and warlock, widow and widower, even cat and tomcat is important and the words are in common use. On the other hand, it is unlikely that anyone other than
a pigeon breeder worries about the difference between *die Taube* and *der Täuferich*. Don’t believe me – ask Micky Mäuserich.

### 9.1 Gender with specific vs. generic reference

The system of gender mobility described thus far applies only to specific reference (reference to a specific individual or individuals). It does not, however, apply to generic reference (reference to an entire class of individuals).

To make the distinction clear, consider first an example of specific reference: *der Student, der mich heute in meiner Sprechstunde besuchte, ~ die Studentin, die mich heute in meiner Sprechstunde besuchte,* ‘the student (m.v.s. f.) who consulted me during my office hours today’. Here, I am referring to a specific individual and the masculine vs. feminine ending is certainly relevant. That is, *der Student* clearly indicates that I am referring to a male, while *die Studentin* indicates that I am referring to a female.

With generic reference, the same principle does not hold. Consider: *Heutzutage ist der Student viel fleißiger als damals, als ich studierte* ‘These days, students work much harder than they did when I was a student’. No competent speaker of German could reasonably claim that this statement excludes women. The generic reference *der Student* includes all students of both sexes. If I were to substitute *die Studentin* in the above assertion, the group of female students (a subset of the whole excluding males) would be the natural referents.

A student pointed out to me that the German language is really unfair to men since there is a generic form that refers to all students, *der Student*, and one that refers only to female students, *die Studentin*, but no form that refers to the group of male students alone.

Perhaps, another example will help clarify this. Suppose I post a notice on the bulletin board that says: *Kein Student darf das Examen schreiben, ohne sich vorzumelden* ‘No student may write the exam without registering first’. Could an unregistered woman demand the right to take the exam on the grounds that *kein Student* only applies to males?

So what is actually going on here? The operative principle involved is markedness. This principle says that in cases of generic reference where we have regular contrasts like male/female, one of the cases (usually the shorter form) is “unmarked” and refers to the entire set, while the other term is “marked” and refers to a subset. In our case, *der Student* is the unmarked term applying to the entire set of students (male and female) and *die Studentin* is the marked term referring to a subset (the set of female students).

That this has nothing to do with sexual discrimination should be clear from the discussion of animal names above. Here, the unmarked term is often feminine and the masculine is marked – derived from the feminine with an additional suffix: *die Ente – der Enterich*. If I were to say: *Am Sonntag habe ich die Enten im Park gefüttert,* ‘Last Sunday I fed the ducks in the park’ no competent speaker of German could reasonably assume that the drakes got nothing.

Thus, elaborate attempts to avoid generic references like *die Studenten* by substituting awkward and grammatically unmotivated terms like *die Studierenden* are both unwarranted and an affront to the “awful German language.”

### 9.2 Gender mobility through the adjective declension

The discussion of markedness above applies to agent nouns with nominal endings. There is, however, another class of forms accommodating gender mobility – substantivized participles. These follow the normal adjective declension. Consider the verb *anstellen* ‘to employ’. The past participle is *angestellt* ‘employed’. The noun forms are derived from the adjective forms of the participle: *ein Angestellter, der Angestellte (masculine), eine Angestellte, die Angestellte (feminine)*. Similarly, *ein Beamter, der Beamt, die Beamte, eine Beamte* (also *die Beamtin*) ‘someone who has been “(ver)beamtet” – granted a civil service position. There are a large number of these: *der/die Vorsitzende ‘chairman’, der/die Verantwortliche ‘person responsible’, der/die Betrogene ‘person deceived’, etc.* In general, the participial constructions, while important, show no sign of replacing the agent nouns.

Simple adjectives also show mobility by virtue of ellipsis (i.e., dropping the noun they modify in context): *Er hat zwei Töchter. Die große (Tochter) studiert Kunstgeschichte, die kleine ist noch auf der Schule* ‘He has two daughters. The older one is studying art history the younger one is still in school’.
Chapter 8: Case

1 The meaning of “case”

After coming to terms with seven different ways of making the plural and three grammatical genders, the next hurdle the learner of German encounters is the dreaded four “cases”: nominative, genitive, dative and accusative. English, of course, also has four “cases”: nominative, genitive, objective and disjunctive.

In case your English teacher didn’t tell you, the disjunctive is the case of me in It’s me. Pronouns that do not stand alone before the verb are generally in the disjunctive case, e.g., Her and me went to the movies or Who’s there (Me/I am).

The disjunctive forms of the pronoun are the same as the objective forms.

But, German applies the “cases” throughout the Noun Phrase: der kalte Wind, des kalten Windes, dem kalten Wind(e), den kalten Wind. An enormous amount of calculation is required just to get a Noun Phrase out of your mouth. Mark Twain once quipped that he would rather decline two drinks than one German noun. To make things worse, the concept “case” is thoroughly confusing (or confused). Are we talking about form, meaning or what?

Charles Fillmore in a series of essays – in particular “The Case for Case” (1968) – helped clarify the issue. He pointed out that the concept “case” was confusingly used to refer to semantic or “deep case” as well as formal or “surface case.” All languages have the same inventory of “deep cases”: source, goal, agent, experiencer, etc., but each individual language has its own idiosyncratic way of projecting “deep case” onto “surface case.” For languages like German, we have to add a third category: “inflectional case.” To make this clear, consider the following examples:

<table>
<thead>
<tr>
<th>Prepositional Phrase</th>
<th>Deep Case</th>
<th>Marker</th>
<th>Inflect. Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>in der Stadt</td>
<td>locative</td>
<td>in</td>
<td>dative</td>
</tr>
<tr>
<td>zu seinem Bruder</td>
<td>directional</td>
<td>zu</td>
<td>dative</td>
</tr>
<tr>
<td>am nächsten Tag</td>
<td>temporal</td>
<td>an</td>
<td>dative</td>
</tr>
</tbody>
</table>
The categories listed under “deep case” are indeed universal. Every language has means of indicating location, direction, time, etc. In all instances noted here, the “inflectional case” in German is the dative (most uninformative). The real “surface case” marker is, of course, the preposition, just as in English.

In English, all prepositions take the objective case, except for of, which takes the objective or the genitive depending on meaning, cf. a picture of me/ a picture of mine.

1.1 Case alone
Now that we have a workable definition of “case,” we can drop the quote marks. As we have seen, surface case in German is made up of two elements: the surface case marker (usually a preposition) and inflectional case (usually marked by the determiner – der, des, dem, den, etc.). But what about syntactic constructions in which inflectional case is the sole marker of surface case? Consider: Öffne der Dame die Tür ‘Open the door for the lady’.

Here, the accusative case die Tür clearly indicates the object of the action and the dative der Dame the beneficiary of the action. Prepositions are not necessary. This raises the question Was there ever a “golden age” in which inflection did the job alone and prepositions were superfluous? The answer is probably not. Surveying the worlds languages, what we find is that some mostly employ prepositions as case markers (English and German), some (like Finnish and Turkish) postpositions that are closely joined to the noun, some (like Classical Latin) rely heavily on inflections. In all cases, we find a mixture of surface case markers and certainly no one-to-one correspondence between deep and surface case. Consider German mit. It can be associative: mit einem Freund, instrumental: mit einem Messer, temporal: mit dem heutigen Tag ‘from today on’, inclusive: mit Dir wären es fünf ‘with you there would be five’, affective: Was ist mit Dir los? ‘what’s wrong with you’ or any number of other things. It remains to be seen if we can reduce these to a single common denominator, but it seems highly unlikely.

1.2 Case syncretism
One reason why we cannot find unique definitions for surface cases is that different cases often fuse over time, often for purely phonetic reasons (sound change). Many a Latin student has wondered why the genitive can be used for location. Corinthī can mean ‘of Corinth’ or ‘in Corinth’. The answer is disappointingly simple: In older Latin the genitive singular ended in -ī and the locative in -ei. When -ei > -ī by regular sound change, the genitive and the locative “fell together.” Meaning was not involved here.

Sometimes syncretism simply involves the falling together of two cases. Thus, in English the dative and accusative fall together into the objective. The form is obviously that of the dative (cf. him ~ ihm, her ~ ihr). Once again, there is no profound change in world view involved. Most of the dative forms in the Germanic languages are, in turn, original instrumentals so there is little wisdom to be sought here.

1.3 Physical case and metaphoric case
By physical case we mean the use of case with place, where we can lay down concrete physical criteria. If I say Meine Brille liegt auf dem Tisch, I am clearly talking about location of an object on a flat surface. On the other hand, if I say Ich legte meine Brille auf den Tisch, I am clearly describing the goal of the action. The following table provides some useful information about physical case:

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
<th>Source</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>zu</td>
<td>von</td>
<td>bei</td>
</tr>
<tr>
<td>Flat surface</td>
<td>auf + acc.</td>
<td>von</td>
<td>auf + dat.</td>
</tr>
<tr>
<td>Vertical surface</td>
<td>an + acc.</td>
<td>von</td>
<td>an + dat.</td>
</tr>
<tr>
<td>Border</td>
<td>an + acc.</td>
<td>von</td>
<td>an + dat.</td>
</tr>
<tr>
<td>Enclosure</td>
<td>in + acc.</td>
<td>aus</td>
<td>in + dat.</td>
</tr>
</tbody>
</table>

The German Language – A Guide for Inquisitive Students
The table by no means exhausts the possibilities or explains all of the complexities, but does provide a rough guide for action. For example, *Ich ging zu meinem Bruder, Ich komme von meinem Bruder, Ich bin bei meinem Bruder, etc.*

Notice that we can define two categories of German prepositions – those that change inflectional case according to their deep case and those that always take the same inflectional case regardless of deep case. Thus, we have the contrast between goal-oriented activity: *Ich gehe in den Raum hinein* ‘I go into the room’ and location *Ich gehe in dem Raum herum* ‘I walk around in the room’. Sometimes we encounter subtitle differences. Is it *Ich pflanze Blumen vor das/dem Haus*? Both are possible. It just depends on how you look at it. Are we talking about the goal of the action (accusative) or the location (dative)?

Other prepositions take a specific surface case regardless of their deep case. Thus, *zu, von, bei* and *aus* are not marked for case in the table above because they always take the dative. Others always take the accusative. For example, *Wir saßen um den Tisch* ‘we sat around the table’. The usage is clearly locative and should logically take the dative – but, it doesn’t. Reason – *um* always takes the accusative regardless of its semantic (deep case) function. Compare *Wir saßen am (an + den) Tisch* ‘we sat at the table’, which behaves as expected. Are you sorry you asked?

Verbs with separable prefixes are a particular problem. We have *in die Gruppe aufnehmen* ‘accept into the group’ (goal-oriented) and *im Körper aufnehmen* ‘absorb’ (already in your body).

### 1.4 Metaphoric case

By metaphoric case we mean all those instances in which case does not refer to physical location. Here we are, unfortunately, totally at sea. Is there a reason why German uses the preposition *über* + acc to reflect the deep case topic, but English chooses *on/about*? Compare: *Er schrieb ein Buch über Fledermäuse* ~ *He wrote a book on/about bats*. Or, *Er ist blind auf einem Auge* ~ *He is blind in one eye*.

Does topic reside upon or around the subject matter in the thinking of the English speaker, but over the subject matter in the mind of the German speaker? This is indeed a tempting conclusion given the German stylistic predilection for abstraction and the Anglo-American preference for concreteness, but any conclusions based on this would be at best far-fetched. As for blindness, it is hard to believe that German speakers conceive of it as lying on the surface of the eye, while English speakers believe that it resides within the eye. Possibly the metaphors once made sense, but now they are thoroughly conventionalized.

An simple example of conventionalization is a phrase like *ein blick auf die Uhr* ‘a glance at the clock’. This makes perfect (deep case) sense if you are looking at a pocket watch – generally held in the palm of the hand – or, for that matter a wrist watch, but makes no sense when applied to cuckoo clock hanging on the wall or grandfather clock standing in the corner. Here we would expect *an* (used for vertical surfaces). Possibly the clock on the wall competed with the pocket watch for a time, but then the more modern invention won out. So, casting a glance at the clock as been conventionalized with *auf*. The physical orientation of the clock no longer matters.
Of course, the further we get from the physical situation, the more difficult it becomes to find or devise explanations.

As a practical guide to the usage of German prepositions, we can recommend Schmitz, W. (1976), *Der Gebrauch der deutschen Präpositionen*, Ismaning: Hueber

### 1.5 Where do little prepositions come from?

Where do little prepositions come from? This may seem like a puzzling question. Prepositions are the tiny fasteners, the case markers, that hold the sentence together. This is the sort of thing you pick up in the hardware department in a plastic bubble package.

But, a closer examination, shows that prepositions are actually derived from other parts of speech – principally nouns, but from verbs and adjectives as well. The first stage of conversion generally involves the all-purpose genitive, e.g., *kraft meines Amtes* ‘by virtue of my authority’. The relationship to *die Kraft* ‘power, strength’ is unmistakable. We also find the dative: *dank seinem Geld ist er davon gekommen* ‘thanks to his money, he got off’. The verb *danken* also takes the dative.

In the next stage, we find uncertainty as to case. Is it *wegen des schlechten Wetters* or *wegen dem schlechten Wetter* ‘because of the bad weather’? The preposition *wegen*, is, of course derived from the dative plural of the noun *Weg*. Or how about *Trotz/trotz?* German dictionary entry: *jemandem Trotz bieten* ‘to defy someone’. Nevertheless, we find *trotz dem Feind/des Feindes* ‘despite the enemy’. In surface case, there is a tug-of-war between nominal dependence (genitive) and the reflection of deep case (dative).

In the final stage of development, a preposition is no longer even vaguely felt to be related to another part of speech. It has wandered so far from its original meaning that even etymologies are speculative. What are we to make of *mir?* Is this somehow related to *Mitte* ‘middle’ or *vorn and fUr*, are these related to IE *per-/por*- also seen in *fahren* ‘travel’? Probably so, but, in these cases, the connection with the original ‘meaningful’ word is so remote that no one (except the linguist) can recognize it. These are really no more than connecting words.

---

**2 Case with verbs**

A complete grammar of German from deep case to surface (and inflectional) case would be a wondrous thing to behold and probably as extensive as this entire book. Here we wish only to provide a bit of insight into verbs that seem strangely to take dative or even genitive objects.

### 2.1 Verbs with the dative

Most verbs with a dative object really have two objects: a personal benefactive object and a direct object of various deep case sources. Consider, *Ich helfe Dir* ‘I’ll help you’. Why *dir* and not *dich*? Now, consider *Ich helfe Dir, die Leiche zu verbergen* ‘I’ll help you hide the corpse’. Here it is clear that the direct object is the embedded clause [*hide the corpse*]. The benefactive object, *Dir*, is in the dative as is usual.

In a great number of cases, the use of the personal dative (= benefactive) can be explained in this way. For example, *ich danke Dir, dass Du mir geholfen hast, die Leiche zu verbergen* ‘I thank you that you helped me hide the corpse’, where both verbs *danken* and *helfen* have personal benefactives and clause objects. There are innumerable cases where the clause object is evident and often represented by *es*. *Erlauben Sie (es) mir, Ihnen die Tür zu öffnen* ‘Allow me to open the door for you’, *Du kannst (es) mir glauben, O.J. hat es getan* ‘You can believe me, O.J. did it’. (On the use of *es*, see also the Chapter on syntax.)

There are, however, a few verbs where no direct object clause is in sight: *Folgen sie mir* ‘Follow me’, *Ich begegnete ihm vor der Bank* ‘I ran into him in front of the bank’. These seem to express the deep case locative or point of reference, which is likewise expressed by the surface case dative. Further examples with a point of reference: *Er ging an dem alten Bahnhof vorbei* ‘He went past the old railway station’, *Er näherte sich dem Kontrollpunkt* ‘He approached the control point’.

An important difference between English and German is the tendency to use the dative to express experiencers rather than the nominative: *Mir ist kalt* ‘I am cold’ (cf. *Ich bin kalt* ‘I have no feelings’), similarly *Mir geht es gut* ‘I’m just fine’, *Das schadet Dir nichts* ‘That won’t hurt you’, but *Es ahnt mir nichts Gutes/Ich ahne nichts Gutes* ‘I have a feeling that all is not well’.
Thus, we must conclude that not all strange datives have the same origin. Some are benefactive, others locative. This hardly exhausts the subject, but we must, nonetheless move on.

2.2 Verbs with the genitive

It is no secret that the German genitive is not doing well. It is, of course, holding its own as a possessive Ludolf’s Fahrrad ‘Ludolf’s bicycle’ and partitive die Rücklehne des Stuhls ‘the back of the chair’ and with various other kinds of connection between nouns, that are often difficult to classify, e.g., Er ist der Anführer der Gruppe ‘He is the leader of the group’.

With verbs, the genitive is far vaguer than the accusative or dative and has mostly been replaced with prepositional constructions. In legal language (influenced by Latin) we still have: Er wurde des Mordes angeklagt, but also Er wurde wegen Mord angeklagt ‘He was charged with murder’. Note the presence of the article in the first example for the purpose of carrying the genitive case marker. We say Er erfreut sich der besten Gesundheit ‘He enjoys the best of health’ (notice English genitive of), but Er erfreut sich an seinem Erfolg ‘He takes pleasure in his success’.

2.3 The accusative alone

The accusative is the case of the direct object as well as goal and extent in space, time or degree. The uses of the accusative to indicate goal have been considered above. Consider the following interesting contrast: Karl aß den ganzen Käse ‘Karl eat the whole cheese’ ~ Karl aß den ganzen Tag ‘Karl ate all day (long)’. In the first example, we have a normal direct object, in the second an extent of time. Similarly, we say Er blieb drei Tage zu Hause ‘he stayed home for three days’, Er kam einen Tag vor mir nach Hause ‘He came home one day earlier than I did’. With distance, we have Fahren Sie drei Kilometer weiter ‘Drive another three kilometers’. With degree: Er ist fünf Kilometer schwerer als ich ‘He weighs five kilos more than I do’.

Closely related is the accusative of cost or amount: Dieser Eisbergsalat kostet nur einen Euro ‘This head of lettuce costs only one Euro’, Er musste einen Monatslohn bezahlen ‘He had to pay a month’s wages’.

Chapter 9: The Verb - Strong and Weak

1 Primary and secondary verbs

In Germanic there are two major divisions in the verb system: the primary verbs, most of which formed the tenses with an internal change in the stem vowel (ablaut, q.v. under sound change), e.g., singen ~ sang ~ gesungen and the secondary verbs, which were formed from nouns, e.g., salben from die Salbe; adjectives, e.g., füllen from voll or other verbs, e.g., setzen from sitzen. Jacob Grimm in his monumental Deutsche Grammatik called the primary (ablauting) verbs “strong” and the secondary verbs, which form their past with -t, “weak.”

2 The strong (ablauting) verbs

The Germanic system of two tenses past and nonpast (serving as present, future and timeless) appears to be a vast simplification of the original Indo-European system as seen in Greek and Sanskrit (or is the Greek-Sanskrit system a special elaboration of an earlier system more like Germanic?). At any rate, we can find parallels in Greek for most of the Germanic forms (cf. Wright, Historical German Grammar, pp. 88-89).

The basic system is illustrated in the following table:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>e-grade</td>
<td>o-grade</td>
<td>zero grade</td>
<td>zero grade</td>
<td></td>
</tr>
</tbody>
</table>

Each of the first five groups of strong verbs combines this basic pattern with an “extension” – a characteristic glide or consonant. These two elements then undergo a combination of regular sound changes. We can illustrate this with the modern verb werden, which belongs to the third ablaut series (IIIa), where the basic vowel is combined with a liquid \(r, l\) followed by a consonant:
The change \( o > a \) observed in the past sing. is a general change between PIE and Germanic, cf. Lat. octo, Germ. acht. The zero-grade verbd- becomes wurd-. In the past participle, the \( a \) of the ending lowers the \( u \) to \( o \), yielding geworden.

Except for the Biblical werden which retains four principal parts, other verbs have generalized either the past sing. or the past plur. Hence, helfen \( \sim \) half \( \sim \) geholfen with generalization of the past singular as with other verbs in IIIa.

It is perhaps worth mentioning, that English has also reduced the system to maximally three principal forms, but has not necessarily chosen the same past form as German. Thus, we have finden \( \sim \) fand \( \sim \) gefunden (with generalization of the past sing. in German), but find \( \sim \) found \( \sim \) found in English, with generalization of the plural gefunden. In other cases, English verbs have gone over to the weak conjugation: help \( \sim \) helped \( \sim \) helped.

For reference, we present a short overview of the Germanic conjugations. For those who wish to cut to the chase, a summary for modern German follows the detailed presentation. You can work forwards or backwards as you wish. The Groups are classified according to the original PIE categories:

**Group I: e/o + i:**

<table>
<thead>
<tr>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>ei</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>PG</td>
<td>ëi</td>
<td>i</td>
<td>i</td>
</tr>
<tr>
<td>OHG</td>
<td>stigai</td>
<td>stigum</td>
<td>gestigan</td>
</tr>
</tbody>
</table>

- NHG werd - werden werden werden geworden
- OHG werden werden werden geworden

(Compare Greek: leipo, lelōipa, elōipon ‘leave’.)

\( ëi > ai \), spelled \(<ei>\). The short \( i \) of the past is lengthened in the open syllable before voiced consonants as in schreiben, mieten, schwiegen, etc., but remains short before voiceless consonants as in schritten, pflügen, schmieren, etc. Leiden \( \sim \) litt\- gelitten and schneiden \( \sim \) schnitt \~ geschritten show the effects of Verner’s law. The accent originally lay on the past plural and the past participle, \( ñ > ð > d > t \).

**Group II: e/o + u:**

<table>
<thead>
<tr>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>eu</td>
<td>ou</td>
<td>u</td>
</tr>
<tr>
<td>PG</td>
<td>eu</td>
<td>au</td>
<td>u</td>
</tr>
<tr>
<td>OHG</td>
<td>fligion</td>
<td>floug</td>
<td>flugum</td>
</tr>
<tr>
<td>NHG</td>
<td>fliegen</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

(Compare Greek: pheugo, \( \rightarrow \), ephugen ‘flee’)

The modern forms are regularly derived: \( io > ie > ëi \), spelled \(<ie>\), smoothing, but retention of the historical spelling. The past tense is derived from the past participle and from the past sing. of verbs with stems in \( -t \), e.g., biotan \( \sim \) bōtum \( \sim \) gebotan. The diphthong \( au > ëo \) before \( t \) (cf. Goth. dauþs = OHG tōt). The vowel of the past in NHG is long when followed by a voiced consonant and short when followed by voiceless consonant, cf. kriechen. Note the two irregular presents lügen from the noun die Lüge in the 17.cent. and (be)trügen by association with lügen and Betrüger. Older German has the expected liegen, triegehen. The verb ziehen~zog~gezogen shows the effect of Verner’s law.

The verbs saugen and saufen also belong here. For \( au < û \) in present, see the Appendix on Mysterious-h.
Group IIIa: e/o + liquid + consonant:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>el</td>
<td>ol</td>
<td>l</td>
<td>l</td>
</tr>
<tr>
<td>PG</td>
<td>el</td>
<td>al</td>
<td>ul</td>
<td>ul</td>
</tr>
<tr>
<td>OHG</td>
<td>helfan</td>
<td>half</td>
<td>hulfum</td>
<td>geholfan</td>
</tr>
<tr>
<td>NHG</td>
<td>helfen</td>
<td>half</td>
<td>---------</td>
<td>geben</td>
</tr>
</tbody>
</table>

(Compare Greek: derkomai ~ dedorka ~ edrakon ‘to look’.)

The liquids and nasals in the zero-grade develop the vowel u. Also: werfen, werden, bergen, gelten, schelten. Sometimes r precedes as in sprechen, schrecken brechen, dreschen (past drosch). There are four common irregular verbs: fechten, flechten, erlöschen, schmelzen. All three have o in the past and past part.

Group IIIb: e/o + nasal + consonant:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>en</td>
<td>on</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>PG</td>
<td>in</td>
<td>an</td>
<td>un</td>
<td>un</td>
</tr>
<tr>
<td>OHG</td>
<td>bindan</td>
<td>band</td>
<td>bundum</td>
<td>gebundan</td>
</tr>
<tr>
<td>NHG</td>
<td>binden</td>
<td>band</td>
<td>---------</td>
<td>gebunden</td>
</tr>
</tbody>
</table>

Before nasal + consonant, e > i (cf. Finn. rengas ~ Ring). Also: finden, springen, stinken, klingen, etc. The consonant cluster nd block lowering before the following a of the past, part., but, before double nasals, the u of the past participle has become o: geschwommen, begonnen.

(Compare Greek pempo ~ pepompha ‘send off’.)

Group IV: e/o + liquid or nasal:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>em</td>
<td>om</td>
<td>ē</td>
<td>m</td>
</tr>
<tr>
<td>PG</td>
<td>em</td>
<td>am</td>
<td>ē</td>
<td>um</td>
</tr>
<tr>
<td>OHG</td>
<td>neman</td>
<td>nam</td>
<td>nāmum</td>
<td>genoman</td>
</tr>
<tr>
<td>NHG</td>
<td>nehmen</td>
<td>-----</td>
<td>nahmen</td>
<td>genommen</td>
</tr>
</tbody>
</table>

Similarly, stehlen, gebären. The verb kommen < OHG queman also belongs here. For the long vowel in the past pl., see the remarks in Group V. With rounding because of w, schwören ~ schwor ~ geschworen.

(Compare Greek meno ~ mone ~ mi-mn-o ‘remain’.)

Group V: e/o + obstruent:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>e</td>
<td>o</td>
<td>ē</td>
<td>e</td>
</tr>
<tr>
<td>PG</td>
<td>c</td>
<td>a</td>
<td>ē</td>
<td>e</td>
</tr>
<tr>
<td>OHG</td>
<td>geban</td>
<td>gab</td>
<td>ğābum</td>
<td>gegeben</td>
</tr>
<tr>
<td>NHG</td>
<td>geben</td>
<td>-----</td>
<td>gaben</td>
<td>gegeben</td>
</tr>
</tbody>
</table>

The vowel of the past participle is borrowed from the present, perhaps to avoid the zero-grade (**geghan**). The long vowel (so-called lengthened grade) of the past plural is probably due to contraction between the reduced stem vowel and the “reduplication syllable.” That is, in PIE, the perfect was formed by repeating the first consonant of the stem: *sésoda ‘I have sat’ and *sesdimós ‘we have sat’. In the singular, the reduplication syllable was dropped and sod-developed
regularly to PG *sat-. In the plural, the *s of the stem was dropped with compensatory lengthening, cf. Latin sēdimus ‘we have sat’ and the long vowel in OHG sāzen.

Also: sehen, geschehen, treten, lesen, etc. The obsolete verb wesen, which gave us the past tense of sein - war, waren, gewesen, also belongs here. For the change *s/r, see “Grammatischer Wechsel” below. The verbs sitzen, bitten, liegen also belong here. They have a j-stem suffix, e.g., *setjan. The j doubles the preceding consonant and raises e>i. The long vowel in liegen is by analogy to fliegen and other verbs with a long vowel before voiced consonant. (Compare Greek: petomai ~ potmos ~ e-p-t-omen ‘fly’.)

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIE</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>PG</td>
<td>a</td>
<td>ò</td>
<td>ò</td>
<td>a</td>
</tr>
<tr>
<td>OHG</td>
<td>tragan</td>
<td>truog</td>
<td>truogum</td>
<td>getragan</td>
</tr>
<tr>
<td>NHG</td>
<td>tragen</td>
<td>trug</td>
<td>trugen</td>
<td>getragen</td>
</tr>
</tbody>
</table>

While the first five groups are based on the alternation of e/o/0, the sixth group is probably a composite based on several sources. The developments between Indo-European and Germanic are murky at best (see the Appendix on “Mysterious-<h>”). Developments within Germanic are quite regular. In OHG ò > uo, retained in Bavarian (cf. bruadà), but smoothed to ū in the standard language (Bruder). Also: graben, tragen, wachsen, waschen, etc. The verb fragen belonged here, but has become weak. The verb stehen ~ stand ~ gestanden is formed from OHG stēn and standan (cf. Eng. stand ~ stood with an n-infix in the pres.). The verb heben < hafjan with i/j-umlaut in the present also belongs here, but has gone over to II in the past, but note the adjective erhaben.

Group VII: the reduplicating verbs
The principle of reduplication is mentioned above under Group V. The reduplication is attested in the earliest Germanic records (particularly in Gothic ca. 350 A.D.). The Gothic verbs fell into two groups: those that retained the same vowel throughout and simply reduplicated in the past and those that altered the past tense vowel as well. Consider the two verbs slēpan ‘sleep’ (VIIa) and lēton ‘let’ (VIIb).

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>slēpan</td>
<td>slēpa</td>
<td>sēslēp</td>
<td>sēslēpum</td>
<td>slēpans</td>
</tr>
<tr>
<td>lēton</td>
<td>lēta</td>
<td>lēlōt</td>
<td>lēlōtum</td>
<td>lētans</td>
</tr>
</tbody>
</table>

Note: the reduplication vowels was spelled <ai> in the extant manuscripts, but we have transcribed it <e> in accordance with its pronunciation.

The developments in the other Germanic languages is very complex and not satisfactorily explained in all details. The characteristic form of the modern verbs is that they have the same vowel in the present and the past participle. The vowel of the past is always ie (with shortening before ng):

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Past Sg</th>
<th>Past Pl.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>schlafen</td>
<td>schlaf</td>
<td>schlief</td>
<td>schliefen</td>
<td>geschlafen</td>
</tr>
<tr>
<td>lassen</td>
<td>lasse</td>
<td>ließ</td>
<td>ließen</td>
<td>gelassen</td>
</tr>
<tr>
<td>fangen</td>
<td>fange</td>
<td>fing</td>
<td>fingen</td>
<td>gefangen</td>
</tr>
</tbody>
</table>

And, of course, no sign of reduplication in sight in the modern languages although there are a few remnants in the older languages – particularly Old English (e.g., behr ‘hieß’). This explains the difference between the principle parts of heißen: heißen ~ hieß ~ geheißen (Group VII) and beißen: beißen ~ biss - gebissen (Group I). The verb scheiden also original belongs here, but has gone over to Group I. Note, however, the adjective bescheiden. The obsolete verb gangan, which
supplies the missing past tense and past participle of *gehen* also belongs here. The nonablauting verbs in Gothic show five different stem vowels: *a*, *e*, *ö*, *ai*, *au* corresponding to German *halten*, *schlafen* (*ã* < *ö*), *rufen* (*u* < *uo* < *ö*), *heßen*, *laufen*. In some cases the ie of the past may have resulted from coalescence of the stem vowel with the reduplication vowel. Undoubtedly analogy also played a role here.

It is, perhaps, also worth noting that the reason these two groups are classified together (VIIa, VIIb) is that they both have the reduplication syllable in Gothic and the uniform *ie* of the past in Modern German. For more on this, see the Appendix on “Mysterious-h.”

The following table summarizes the seven groups of the strong verb in German:

<table>
<thead>
<tr>
<th>Group</th>
<th>Stem</th>
<th>1st person singular (past)</th>
<th>2nd person singular (past)</th>
<th>3rd person singular (past)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>e/o + i</td>
<td>heissen</td>
<td>biss</td>
<td>gebissen</td>
</tr>
<tr>
<td>II</td>
<td>e/o + u</td>
<td>fliegen</td>
<td>flog</td>
<td>geflogen</td>
</tr>
<tr>
<td>IIIa</td>
<td>e/o + liquid + consonant</td>
<td>helfen, werfen</td>
<td>half, warf</td>
<td>geholfen, geworfen</td>
</tr>
<tr>
<td>IIIb</td>
<td>e/o + nasal + consonant</td>
<td>finden, singen</td>
<td>fand, sang</td>
<td>gefunden, gesungen</td>
</tr>
<tr>
<td>IV</td>
<td>e/o + liquid or nasal</td>
<td>stehlen, nehmen</td>
<td>stahl, nahm</td>
<td>gestohlen, genommen</td>
</tr>
<tr>
<td>V</td>
<td>e/o + obstruent</td>
<td>geben, setzen</td>
<td>gab, saß</td>
<td>gegeben, gesessen</td>
</tr>
<tr>
<td>VI</td>
<td>a/ã</td>
<td>fahren</td>
<td>fuhr</td>
<td>gefahren</td>
</tr>
<tr>
<td>VII</td>
<td>reduplicating</td>
<td>heissen, rufen</td>
<td>hiefi, rief</td>
<td>geheißen, gerufen</td>
</tr>
</tbody>
</table>

3 The preterite-present verbs
As we saw above, in older German the past sing. and past plur. had different vowels in most groups. This provides the clue to another mystery. How is it that some German verbs have different vowels in the pres. sing. and pres. plur.?

The most interesting example of this type is the verb *wissen* with the sing. *ich weiß*, *du weißt*, *er weiß* and the plur.: *wir wissen*, *ihr wisst*, *sie wissen*. Notice that the first person, *ich weiß*, has no *e-* and the third person sing. *er weiß* no *t-*ending, which looks very much like the past: *ich gab*, *du gabst*, *er gab*.

The resemblance between the present of verbs like *wissen* and the historical past of verbs like *heißen*, cf. OHG *heiss* ~ *bissen* (cf. Group I above) is no accident. *Wissen* is a Group I verb with past tense forms that are used with present tense meaning.

The original meaning of the root PIE *weid-/woi d-/wid*- was “see”, cf. Latin *video* ‘I see’. The perfect ‘I have seen’ came to mean ‘I know’, cf. English, where we say “I see,” meaning ‘I understand’. A new past tense was constructed on the pattern of the weak verbs. In OHG *wisste*, under the rounding influence of the initial *w* ~ *wusste*.

Most of the modal auxiliaries belong here: *kann ~ können, mag ~ mögen, darf ~ dürfen*, etc. With these verbs the relationship between form and meaning is not so clear although they present a wonderful field for semantic speculation. In the case of *können*, perhaps knowledge is power (cf. *kennen* ‘know’) or *dürfen* (cf. ON *þrifa* ‘to grasp’) I have successfully seized therefore I now have permission or license.

4 Personal endings and vowel harmony
Another characteristic of the strong verbs that immediately captures our attention is the vowel mutation in the second and third person sing. of the present: *ich helfe ~ du hilfst ~ er hilft; ich nehme ~ du nimmst ~ er nimmt; ich gebe ~ du gibst ~ er gibt*, etc.

The vowel alternation can be explained as the cooperation of two forces which we will consider in greater detail under the discussion of the mutation of the short vowels below. One is *i/j-umlaut*, the other is the North-West-Germanic vowel harmony (East Germanic made other arrangements).

To anticipate the treatment somewhat:
We can say that, in all likelihood, Proto-Germanic inherited a system of five short vowels:

\[
\begin{array}{cccc}
  & i & u & \\
  e & o & a & \\
\end{array}
\]

Now, in earliest times, \(o \rightarrow a\) unconditionally and \(e \rightarrow i\) before a high vowel \((i, u)\) in the following syllable.

Compare the present tense of OHG *geban* ‘give’:

<table>
<thead>
<tr>
<th>OHG</th>
<th>MHG</th>
<th>NHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>gebu</td>
<td>gibe</td>
<td>gebe</td>
</tr>
<tr>
<td>gibis</td>
<td>gibest</td>
<td>gibst</td>
</tr>
<tr>
<td>gibit</td>
<td>gibet</td>
<td>gibt</td>
</tr>
<tr>
<td>gebamēs,</td>
<td>geben</td>
<td>gebamēs,</td>
</tr>
<tr>
<td>-ēm, -ēn</td>
<td>geben</td>
<td>geben</td>
</tr>
<tr>
<td>gebet</td>
<td>gebet</td>
<td>gebt</td>
</tr>
<tr>
<td>gebant</td>
<td>gebent</td>
<td>gebent</td>
</tr>
</tbody>
</table>

In the singular, before the high vowels \(i, u\), the stem vowel \(e \rightarrow i\). In the plural, before \(a, e\) the original stem vowel is retained. Strangely, in NHG, *ich gibe* has become *ich gebe*, perhaps in analogy to the first person plural and the infinitive.

In the originally reduplicating verb *stoßen*, *er stößt*, the Germanic stem was *staut-* with \(au \rightarrow ō\) before \(t\) in High German cf. Goth. *daufs* ~ OHG *tod* ‘death’. Umlaut caused by the \(i\) of the singular endings occurs after the vowel shift.

The best guess on *gebames* is that it is derived from *gebam + mes*, the latter being a form of the pronoun ‘we’ still seen in Bav. and Yid. *mir*.

### 4.1 The modern verb endings

As can be seen from the previous discussion, the major tendency in the evolution of the German verb endings is one of weakening and leveling. The weakening of the final vowels between Old and Middle High German resulted in leveling of the strong and weak endings: *salbōt*, *habēt*, *gibīt*. All reduce the final vowel of the ending to a colorless schwa. The second person singular acquires its *t*, perhaps through false division *gibis du > gibst u*. The finally -*t* of the third person plural is lost, perhaps under analogy to the first person.

In the modern language, the schwas are lost before consonants and colloquially in final position as well (e.g., *ich hab's ihm gesagt, ich hätt's dir gesagt*). The impressive array of verbal endings has been reduced to a triumvirat:

<table>
<thead>
<tr>
<th>Verb Endings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
</tr>
<tr>
<td><strong>Singular</strong></td>
</tr>
<tr>
<td>-e</td>
</tr>
<tr>
<td>-st</td>
</tr>
<tr>
<td>-t</td>
</tr>
<tr>
<td><strong>Plural</strong></td>
</tr>
<tr>
<td>-en</td>
</tr>
<tr>
<td>-t</td>
</tr>
<tr>
<td>-en</td>
</tr>
</tbody>
</table>
The present forms serve for most strong and weak verbs. Weak verbs that end in *t,d* however, retain the schwa in the endings before an obstruent and belong with “other” (cf. *du arbeitest, er arbeitet, ihr arbeitet, ich rede, du redest, er redet, ihr redet*). The strong verbs show two patterns. Those that do not mutate the vowel retain the schwa: (cf. *ich streite, du streitest, er streitet, ihr streitet*). Those with vowel mutation drop the reduced vowel whose grandfather caused the mutation in the first place! Compare *ich trete, du trittest, er tritt, but ihr tretet*.

The strong preterite has no ending in the first and third person singular – a perfectly regular development considering the general pattern of final vowel reduction. The second person singular is a product of analogy, the stem vowel having been borrowed from its neighbors and the ending from its cousins. Even the most curious student is unlikely to stumble over this without a bit of Old High German or Old English.

The ubiquitous category “other” clearly covers the weak pasts (because of the *t*-ending, *du liebtest*, etc.) and the present and past subjunctive (cf. *Er sagt, er habe/hätte das Geld gefunden*). Thus, there remains a fearful – if much reduced – symmetry.

5 “Grammatischer Wechsel”

“Grammatischer Wechsel” – still another term coined by Jacob Grimm – refers to the change of medial consonants in the strong verb conjugation, e.g. *was ~ were*. This effect, which Grimm noted, but could not explain, was the key to the discovery of Verner’s law (see above). Simply stated, Verner’s law stipulated that voiceless fricatives in PG became voiced in a voiced environment (as between vowels) if the PIE accent did not immediately precede. A similar effect can be noted today by comparing the pronunciation of *Hannôver [f]* and *Hannoveráner [v]*.

Since the accent was regularly on the stem in the present and the past sing. and on the ending in the past plur. and past part. of the strong verbs, the stage was set for a regular alternation of voiced and voiceless fricatives within the paradigm. Most of these alternations have been leveled, but a few remain: *schneiden ~ schnitt ~ geschnitten; leiden ~ litt ~ gelitten (p > d; ð > t)*. The alternation in English *was ~ were* (z > r) has been leveled in German, but the distinction can still be seen in *freeze ~ frieren; choose ~ kären*, where English has leveled in favor of *s* and German in favor of *r*. The alternation in *ziehen ~ zog* also belongs here.

6 Me, me, me!

A particularly ancient class of verbs in PIE joined the ending directly to the stem without benefit of an intervening *e/o*. Compare the reconstructed PIE forms of the present tense of “be” with the recorded Latin forms:

<table>
<thead>
<tr>
<th>PIE</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>es-mi</td>
<td>sum</td>
</tr>
<tr>
<td>es-si</td>
<td>es</td>
</tr>
<tr>
<td>es-ti</td>
<td>est</td>
</tr>
<tr>
<td>s-mes</td>
<td>sumus</td>
</tr>
<tr>
<td>s-the</td>
<td>estis</td>
</tr>
<tr>
<td>s-enti</td>
<td>sunt</td>
</tr>
</tbody>
</table>

Notice that the singular has the *e*-grade and the plural the zero grade in PIE. Latin has made various adjustments to this well-worn verb.

The original *-mi*-ending is preserved in English *am* and (with a different stem) German *bin < OHG him*. Strangely, this most ubiquitous of verbs is a composite formed from several different stems. The stem *es/s* gives us *ist, sind, seid*. The stem *bheu-* gives us *bin, bist*. The past (*war, gewesen*) is derived from the verb *wasen* (cf. *das Wesen ‘being’*).

In Old High German, the second and third groups of “weak” verbs (see below) also followed the “-mi conjugation.” Thus, we have OHG *salbôm ‘ich salbe, I salve’ and habêm ‘ich habe, I have’. With the single exception noted above (*ich bin*), all of these “mi-verbs” have joined the crowd.
7 The “weak” verbs
The weak verbs are verbs that do not follow the ablaut patterns described above, but rather form their past tense with a -t- suffix. Most of them are derived from other verbs (setzen < sitzen), adjectives (töten < tot) or nouns (furchten < Furcht). Others may be “primary” verbs. Originally there were three (in Gothic four) groups, which, due to the weakening of the final vowels, fell together into a single conjugation in the modern language.

8 The “weak” past
Why the non-ablauting verbs should be termed weak is a mystery that only Jacob Grimm can unravel — since he coined the term in his Deutsche Grammatik. Considerably more interesting is the origin of the past tense suffix.

Thanks to the evidence of Gothic, there can be little doubt that the suffix is derived in most cases from the verb do. Compare the endings of Gothic sōkjan ‘seek’ with the past tense of tun in OHG:

<table>
<thead>
<tr>
<th>Gothic</th>
<th>OHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>sōki-da</td>
<td>te-ta</td>
</tr>
<tr>
<td>sōki-dēs</td>
<td>tā-ti</td>
</tr>
<tr>
<td>sōki-da</td>
<td>te-ta</td>
</tr>
<tr>
<td>sōki-dēdum</td>
<td>tātum</td>
</tr>
<tr>
<td>sōki-dēduhp</td>
<td>tātut</td>
</tr>
<tr>
<td>sōki-dēdun</td>
<td>tātun</td>
</tr>
</tbody>
</table>

Considering the regular sound correspondencies between Gothic and OHG (d = t, ē = ā, ū = t) the match is almost perfect. In the singular, the reduplication has been lost. Thus, I loved is derived from I love + did.

We find the same principle in the future tense of the romance languages, e.g., French j’aimerai = aimer + ai ‘to love + I have’ i.e., I have to love = I will love.

The t-ending of the past part. is probably identical to the ending seen in Latin ama-t-us.

8.1 The causatives
Perhaps the most interesting group is formed by the causatives, which are derived largely from primary verbs. These exist today in pairs like: setzen ~ setzen, liegen ~ legen, sinken ~ senken (literally ‘sit’ ~ ‘cause to sit’; ‘lie’ ~ ‘cause to lie’; ‘sink’ ~ ‘cause to sink’). The causatives were regularly derived from o-grade stems (in Germanic a) with the suffix -ejo-, which caused umlaut and doubling of the stem final consonant. PIE sod+ejo > PG satija > OS settian; OHG setzen.

8.2 Rückumlaut
The causatives and other verbs of the weak class formed with the suffix -ija formed their past tense with the reduced form of the suffix -i-. After a long stem syllable (one containing a long vowel or diphthong, or a short vowel plus two consonants), this suffix was dropped. As a result, there was no umlaut in the past. Thus, sand + ita > sand + ta > sandte. Grimm called this effect “Rückumlaut” because it seemed as if the verbs in question had “given up” their umlaut in the past tense. In earlier stages of German, these verbs were very numerous. There are still a few left: nennen ~ nannte ~ genannt; similarly: rennen, kennen, senden, wenden. Most of the others were eliminated by analogy: senken ~ senkte ~ gesenkt. In some cases, both the historical and the leveled form exist: sandte or sendete. The forms without umlaut also survive in nouns like: Gesandte, Schatz, Bestellung.

8.3 “Bringen, brang, gebrungen”
Earlier we argued that shared irregularities in verb system attested to the sisterly relationship between German and English. Clearly, the parallels between denken ~ think, bringen ~ bring cannot be due to coincidence or borrowing. But, where do the familiar forms come from?

Notice, that German denken ~ dachte ~ gedacht shows “Rückumlaut” as explained above. But, what happened to the consonants?

In Proto-Germanic the collision between nk or ng and the t-suffix
produced a velar fricative \( \chi \) (as in Bach). Hence, \( \text{dank} + \text{te} > \text{dachte} \).

Before the velar fricative, the \( n \) was dropped with compensatory lengthening of the vowel: \( \text{dachte} > \text{OHG dachte} \), with shortening of the vowel in the closed syllable, \( \text{NHG dachte} \). This accounts for \( \text{denken} \sim \text{dachte} \sim \text{gedacht} \).

The situation with “bring, brang, brung” is somewhat more complicated. The verb has a complex root: \( \text{bher} + \text{enk} \), both parts meaning ‘bear’. The development is: \( \text{bherenk} > \text{brench} > \text{brink} > \text{bring} \). Germanic \( \text{bringen} \) thus belongs to Group IIIb of the strong verbs like \( \text{singen} \).

The expected past forms \( \text{brang}, \text{brungun} \) do in fact occur in Old High German! In addition, there is a “regular” weak verb of the first conjugation: \( \text{OHG brengen}, \text{OS brengian} \). The familiar \( \text{bringen} \sim \text{brachte} \sim \text{gebracht} \) is a conflation of a strong present with a weak past, cf. Du. \( \text{brengen} \sim \text{bracht} \sim \text{gebracht} \) with weak present.

8.4 Second weak conjugation: the ä-class

The second weak conjugation was mostly derived from nouns. There is a remarkable parallelism here between Germanic and Latin. Consider Latin \( \text{planta} \) ‘plant’ and \( \text{planēre} \) ‘to plant’. The regular correspondences in High German yield \( \text{pflanzen} \sim \text{pflanzen} \) (with a different infinitive ending appended to the stem). There is, of course, no alteration of the stem vowel here since no \( i/j \)-umlaut is involved in High German.

Also, \( \text{salba} \sim \text{salbōn} \) ‘salve ~ to salve’, \( \text{gināda} \sim \text{ginādnōn} \) ‘grace ~ to show grace’, \( \text{dank} \sim \text{dankōn} \) ‘thanks ~ to thank’, \( \text{arbeit} \sim \text{arbeitōn} \) ‘Arbeit ~ arbeiten’, etc.

These took the \( m \)-ending in the first person sing. In \( \text{OHG: salbōn} \). This difference from the first conjugation has also been leveled over time.

The formation of the ä-class in High German is, as indicated above, quite parallel to Latin.

In English, on the other hand, the formation is parallel to the Greek verbs in \( -\text{ajo} \) (cf. \( \text{fimā} \) ‘notice, honor’ and \( \text{fimaō} \sim \ast \text{fimajō} \) ‘to notice, to honor’). The \( j \) in the English forms (along with analogical leveling) accounts for pairs like \( \text{melken} \sim \text{milk}, \text{stechen} \sim \text{stick}, \text{lecken} \sim \text{lick} \).

8.5 Third weak conjugation: the ë-class

The third weak class also consists of verbs derived from nouns or adjectives, but may contain some primary verbs. Thus, we have \( \text{ēra} \sim \text{ērōn} \) ‘honor ~ to honor’, \( \text{saga} \sim \text{sāḡēn} \) ‘a tale ~ to tell’, \( \text{trīwa} \sim \text{trūwēn} \) ‘loyalty ~ to trust’; \( \text{bald} \sim \text{baldēn} \) ‘bold ~ take courage’ (obsolete). These also have the \( m \)-ending as in the second conjugation.

Primary verbs are most likely \( \text{wōnēn} \) ‘dwell’, \( \text{lebēn} \) ‘live’. Here again there is a parallel to Latin, namely the second conjugation verbs in \( -ēre, \text{e.g.}, \text{habēre} = \text{OHG hastēn} \).

The comparison between Lat. \( \text{habēre} = \text{OHG hastēn} \) is an intriguing case. The match seems to be perfect. Both verbs mean ‘have’ and are used as auxiliaries. They belong to the same conjugation, but, according to the sound laws, they cannot possibly be related. Since borrowing also seems unlikely, \( \text{OHG hastēn} \) is most likely related to Lat. \( \text{capere} \) ‘to seize’.

8.6 Suppletive verbs

Those who have studied the Romance languages may have had occasion to wonder about the verb \( \text{go} \): in French \( \text{je vais ‘I go’, nous allons ‘we go’}, \text{you must ‘we will go’} \). What do these three completely different forms have to do with one another? Answer – nothing, except that they all express the idea of “going.” In fact, we have a single paradigm which incorporates three different Latin verbs: \( \text{vadere ‘go, wander’}, \text{ambulare ‘go, stroll’}, \text{ire ‘go’} \). Similarly, in English, \( \text{go} \) and \( \text{went} \) are obviously not related by any rule. In these cases, we have examples of “suppletion” – simply put, of verb paradigms that are made up of several different roots although no difference in meaning is felt between them. The past \( \text{went} < \text{wend} \) ‘to make ones way’ is no longer felt to express a different meaning than \( \text{go} \) and the verb \( \text{wend} \) now has a “regular” past \( \text{wended} \).

The same is the case for the German verb \( \text{go} \). It is composed of two verbs.

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>gehen</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>(gangan)</td>
<td>ging</td>
<td>gegangen</td>
</tr>
</tbody>
</table>

This is a combination of two similar roots: PIE *ghē- and *ghenh-.
The former does not fit into any of the patterns we have discussed above. The latter is clearly a member of Class VII of the strong verbs.

8.6.1 The verb be
The verb be is certainly the most prominent case of suppletion. Consider German ich bin, er ist, wir sind, wir waren. Obviously, a single root is not involved here. The ancient and venerable root *es/s has been considered above under the discussion of mi-verbs. This root accounts for ist, seist, sind as well as subjunctive forms like sei. The forms bin < bim, bist are from the root *beu/bhù. This root gives Lat. fu § ‘I was’. The original meaning seems to be ‘become, grow’ (cf. Skt. bhāvati ‘become, is’). The last member of the group (war, gewesen) is from the root *wes- (cf. Skt. vēsati ‘dwell s, remains’). The semantic affinity to the past should be clear. The alternation of s~r is due to Verner’s Law, cf. Eng. was~were. In modern German, the r-form has been generalized in past tense war ~ waren and the s of gewesen carried over from the original infinitive wesan.

The modern forms are the result of a long sorting out between the rival roots. Thus, in Old High German, in addition bim (bin) and bîst(t), we have the plurals birum ‘wir sind’ and bîrut ‘ihr seid’. The zero-grade of the *es-stem was responsible for the subjunctive (sei, seist, sei) from earliest times as was the root *wes- for the past.

8.7 A case of doubt
In addition to the indicative (Elvis was rich), both German and English have another mood, which expresses doubt, counterfactual conditions, wishes and the like (He said that he saw Elvis at the mall, If Elvis were still alive, he would know what to do, O that Elvis were still alive). In the parent language, or at least in Greek and Sanskrit, the labor of doubt is divided into two moods – the subjunctive and the optative. The distinction between these two forms is anything but clear. In any case, the Germanic languages have just one form of doubt called subjunctive in English and “Konjunktiv” in German. These forms go back to the historical optative.

8.7.1 The forms
The sign of the optative was ī. In the singular, this was joined to the thematic vowel -o- and followed by the personal ending. Hence, for the present subjunctive of nehmen, we can reconstruct: *nemoi, *nemois, *nemoit, *nemoim, *nemoite, *nemoīnt. With the loss of final t and the regular development oi > ai > ē > e, we arrive at the set of verb endings classified under “other.” This also explains the lack of vowel mutation e>r in the singular, i.e., there was no ī,a in the ending.

The past subjunctive was built on the zero-grade of the stem (like the past plural indicative) and generalized the marker ī. Thus with adjustments and leveling, we find essentially the same forms as the past plural indicative plus umlaut: e.g., wenn ich hülfe (original past plural), wenn ich bänne (with umlaut of the generalized vowel of the singular). The personal endings are reduced and merge with those of the present subjunctive in the “other” class.

These forms are now regarded as obsolete for the most part and have been replaced in everyday spoken German by forms of the past subjunctive of werden plus the infinitive: ich hülfe ~ ich würde helfen; ich bänne ~ ich würde binden.
Chapter 10: Pronouns and Adjectives - a Radical Reanalysis

1 Pronoun, Demonstrative, Adjective and Clitics

The key to understanding the seemingly formidable German pronominal, demonstrative system is the clitic. Simply put, a clitic is a small word (usually a pronoun or particle) that “leans” on another word. A good example is the actual pronunciation of a sentence like: Did he do it. Notice that in normal conversation did he is contracted to did-i. The initial h is lost and the reduced form of the pronoun leans on the previous word. This is an example of an enclitic (attaches itself to the previous word). There are also proclitics, which attach themselves to the beginning of the following word, but we will mostly be concerned with enclitics.

The modern German enclitics come in two flavors, strong and weak. The strong ones are accented and the weak ones are not. The weak clitics are reduced forms of the strong ones – reduced because they do not bear the accent in the word they occur in:

<table>
<thead>
<tr>
<th>Strong and Weak Clitics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
</tr>
<tr>
<td>Gen.</td>
</tr>
<tr>
<td>Dat.</td>
</tr>
<tr>
<td>Acc.</td>
</tr>
</tbody>
</table>

The differences between the strong and weak form are minimal and affect only -as (⇒ -es) and -ie (⇒ -e). Notice that all three genders have the same plural form. This is a simplification from earlier stages of the language. The masc. sing. and neut. sing. differ only in the nom. and acc. and the neuter always has the same form in the nom. and acc. This something all Indo-European languages have in common.

The clitics “lean on” various bases (sometimes with small variations). Most determiners: dies-, jen-, welch-, manch-, solch-, etc. append the weak clitic. The definite article with the base d- takes the strong form because the clitic is accented (cf. das).
The indefinite article *ein* and the possessive pronouns *mein, dein, sein,* etc., have no ending in the masc. and neut. nom. sing. (and, of course, the neut. sing. acc.), but otherwise follow the clitic table above. 

In the absence of a determiner (or where the determiner does not permit the clitic), the clitic attaches itself to an adjective: *großer Lärm um nichts, ein großes Tier,* but *dieses große Tier,* where the clitic has attached itself to the base *dies-*.

The adjective + clitic is also complicated by one irregularity: the masc. and neut. sing. gen. usually have the ending -*en* rather than the expected -*es*. Thus, we generally have *wegen schlechten Wetters* rather than the expected *wegen schlechtes Wetters.*

1.1 The anaphoric pronoun

The third person anaphoric pronoun (*er, sie, es,* etc.) also follows this schema, but with a more complex mix of bases.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>der</td>
<td>das</td>
<td>die</td>
<td>die</td>
</tr>
<tr>
<td>Gen.</td>
<td>des</td>
<td>das</td>
<td>die</td>
<td>die</td>
</tr>
<tr>
<td>Dat.</td>
<td>dem</td>
<td>dem</td>
<td>der</td>
<td>der</td>
</tr>
<tr>
<td>Acc.</td>
<td>den</td>
<td>das</td>
<td>die</td>
<td>die</td>
</tr>
</tbody>
</table>

The forms in *e-* and *i-* are from the base *j-*.

The modern spelling convention is also of interest. MHG *sehen* was pronounced [sEhən]. In the open first syllable, the vowel was lengthened and the *h* became silent, yielding the modern pronunciation [sən]. Thus, the now useless <h> became interpreted as a sign of vowel length and was introduced into one-syllable words like: *ihm, ihn, ihr, Ohr, wohl.* To be sure, we use the alternative <ie> before */l* (e.g., *viel, Ziel*), but consistency always was a quality of small minds.

1.2 What to do without a clitic

The example cited above, *dieses große Tier,* raises an interesting question. The clitic -*es* is attached to the determiner *dies-* , so where does the adjective ending -*e* come from?

It turns out that the forms of the adjective, when the clitic is attached to a preceding determiner, are limited to -*e* and -*en*. The nom. sing. of all three genders (and of course the neut. sing. acc., which is always identical to the nom. sing.) has the ending -*e*. All other forms have the ending -*en*. We shall try to make some sense of this below. But, for the moment, this is all you need to get the endings right.

2 Bases and clitics - putting it all together

We have already established that enclitics can attach themselves to determiners: *dies + es,* and adjectives: *groß + es.* Let us now take a look at more primitive bases.

In the Indo-European parent language there a number of “sentence introducing particles.” Originally, these served to link together sentences in a narrative and serve as a base for enclitics. Both functions are still visible in the modern languages. Consider the following anecdotal accounts in English and German:

1. I’m standing there looking at the stuff when this guy comes over and says: “What are you doing there.” So I says to him: “None of your business.” So he raises his fist and says: “You
lookin’ for a shot in the mouth?” So I says: “Just you try it and I’ll murder you!”

In NHG the particle *da* is used in this way.


The sentence introducing *so* and *da* serve no other function here than to preserve the continuity of the narrative. To be sure, both have developed more specific roles as conjunctions. Just compare the non-italicized instances of *da* in the German example. Here, *da* means ‘there’. Similarly, *so* in English can indicate purpose: *He did it so he could succeed.*

We can add *now* and its German equivalent *nun* to the list: *Now, I’m not quite sure I know what you mean.* Here, *now* does not mean ‘at this moment’. For those who know Latin, we can add *-que* ‘and’ as in *senatus populusque Romanus* ‘the senate and the people [of] Rome’. The same *que* at the beginning of a clause forms the base of the interrogative and relative pronouns *quis <que* + *is*, *quid <que* + *id*, etc. (literally *and + he, and + it*).

The very same phenomenon is observed in English with the identical base/pronoun *which*:

(3) He looked like a doctor, *which* he was. (*which* = *and + that*)

(4) The door *which* lead to the tower was locked. (*which* = relative pronoun)

(The modern form is from *hwe* + *lik*. Lat. *que* = Germ. *hwe*. In Mod. Eng. the enclitic is lost.)

2.1 The Hittite connection

So far, I have tried to make the case that so-called inflected forms (e.g., *dieser, dieses, diesem*, etc.) are really combinations of base + enclitic.

To prove the point, however, we have to take a journey back to ancient history, to the earliest recorded IE language - Hittite.

The Hittites burst on the scene of history ca. 1650 B.C. when they established their rule in Anatolia (modern-day Turkey). Thanks to instruction from their neighbors, who already knew how to read and write, the Hittites were able to leave invaluable written records, certainly hundreds of years older than the nearest IE competition.

The bases *ta-, sa-, nu* in Hittite combine with enclitics in a way that is strikingly similar to the Germanic languages. Here is a comparison between the Hittite base *ta-* + enclitic and the OHG determiner. I have deliberately chosen the forms that are most obviously equivalent since my purpose here is to illustrate the principle rather than settle all the details.

<table>
<thead>
<tr>
<th>Case</th>
<th>Hittite</th>
<th>OHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>nom. sg. masc.</td>
<td>tas</td>
<td>der (*r &lt; <em>z &lt; s</em>)</td>
</tr>
<tr>
<td>acc. sg. masc.</td>
<td>tan</td>
<td>den</td>
</tr>
<tr>
<td>nom./acc. sg. neut</td>
<td>tat</td>
<td>das (<em>s &lt; t</em>)</td>
</tr>
<tr>
<td>dat. sg./pl.</td>
<td>tasmas</td>
<td>demo (*m&lt; <em>mm &lt; sm</em>)</td>
</tr>
</tbody>
</table>

There is an important difference between the Hittite forms and those of the other IE dialects. In Hittite, one cannot speak of a ta-pronominal declension because the enclitic can be separated from its base by one or more elements. So, for instance, we not only find forms such as *t-as* ‘and-he’, but *ta-war-as* ‘and-said-he’, *ta-ma-as‘and-but-he’, etc., where another element intervenes between the base and the pronoun. It is this phenomenon which leads to the analysis of *-as* as an enclitic, a movable form. In the other IE dialects (outside the Anatolian family) the reflexes of *-as* always appear bound to one or another base. So in NHG *-er* appears in *d-er, welch-er, jen-er*, etc., but
these are not analyzed composites. In Hittite, however, other elements such as -ma- ‘but’ or -war- ‘said’ can intervene, which reveals the nature of the original enclitic. (It is perhaps worth mentioning that the Hittite connection - the origin of the German der, die, das was observed by Sturtevant as early as 1942.)

For Gothic (the oldest extensively recorded Germanic language), we can posit the following base + enclitic forms of the masc./neut. dat. sg.:

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Clitic</th>
<th>Composite</th>
<th>Result</th>
<th>NHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adj.</td>
<td>blinda-</td>
<td>-mma</td>
<td>blindama</td>
<td>blind-</td>
<td></td>
</tr>
<tr>
<td>Det.</td>
<td>þa-</td>
<td>-mma</td>
<td>þamma</td>
<td>dem</td>
<td></td>
</tr>
<tr>
<td>PN</td>
<td>j-</td>
<td>-mma</td>
<td>imma</td>
<td>ihm</td>
<td></td>
</tr>
</tbody>
</table>

Since the essentially syntactic nature of the underlying clitization was not recognized, the standard account of these forms tries to make the adjectives behave as they do in Latin or Greek, where adjectives are declined like nouns (e.g., Lat. puella bona ‘good girl’, dominus bonus ‘good master’, librum bonum ‘good book’). Thus, in Gothic, the ending of the gen. sg. blindis ‘blind’ is taken to be a nominal form like dagis ‘[des] Tages’ although the determiner þis (< þa + is) shows that the pronominic clitic could be the source. The clearly pronominal forms like the neut. nom. sg. blinda (cf. pata) are supposed to be contaminated or influenced by the pronominal forms.

The Hittite string of base + clitic is not limited to a single element. An entire string of clitics (base + subj. + dir. obj. + indir. obj. + adv.) is possible, e.g., ta-se-an-si-kan tuhsanzi, which translates literally into German as: dass-sie-sie-ihm-weg nahmen, in Hittite ‘and they took her away from him’.

3 But note: welch guter Mann vs. welcher gute Mann, where the clitic -er can attach either to welch- or gut-.

3. The “weak” adjective

Thus far, we have accounted for the resemblance between the “strong” adjectives and the determiners (i.e., der blinde Mann, ein blinder Mann) by positing an enclitic pronoun that attaches itself either to the base or the adjective. To be sure, we have yet to explain the syntactic processes involved, but first let us turn our attention to the “weak” adjectives.

3.1 The traditional analysis - What’s in an -n?

The traditional analysis of the so-called weak adjectives relies, once again, on a comparison between the Germanic and the classical languages. The standard explanation for the n-declension adjectives is that they are an extension of n-stem nouns which occur in a number in IE languages. These nouns, usually derived from other nouns or adjectives, were used to indicate a personal attribute.

Thus to the Lat. adjective rufus ‘red’, there is an n-stem rufo, -onis meaning ‘the red one’. So a Roman named Caius who had a ruddy complexion might be known as Caius Rufo. The same construction is seen in Greek platus ‘flat, broad’ and Plato(n) ‘the broad-shouldered one’ and in NHG Karl der Große (des Großen) ‘Karl the Great’.

According to this view, the German weak adjectives represent a massive generalization of this phenomenon. In all of these cases, the n-stem indicates a definite individual - the red-haired Caius, the great Karl (not the bald one). But, there is no semantic relationship to the ordinary n-stem nouns like OHG hano ‘Hahn’, zungo ‘Zunge’, herza ‘Herz’, evidently the nominal n-stems and the attributive n-stems cannot be reduced to a common denominator.

3.2 Hirt’s pronominal analysis

As early as 1934, Hirt recognized that the n-stem “definite” adjectives paralleled similar “definite” adjective constructions in the neighboring Baltic and Slavic languages. In Old Church Slavonic, the earliest recorded Slavic language (ninth century), the situation is particularly clear. (Note, however, that the base is j- rather than n-.)

Thus, from the neut. sg. nom. staro ‘old’, the definite adjective staro + jo ‘the old one’ could be formed. The process is fairly transparent. The “short” or indefinite form of the adjective is inflected more or less as expected from Greek and Latin. The “long” form adds
the base -j- plus the enclitic pronoun. Reductions of the double forms take place, but are easily reconstructed. There is a striking parallel to this double inflection of definites in Old Icelandic. Here the n-suffix is appended to the noun. Once again, reduction and assimilation has taken place, but the original double inflection is clear in the gen. sg. arms-ens ‘des Arms’, nom. pl. armar-ner ‘die Arme’. Hirt presumes that this appended article is from an IE pronominal stem eno- or something similar and is related to Slavic 3. pers. pronouns like Russian on ‘he’.

It is worth adding that this set of clitics is also joined to the IE base ki- (Germanic hi-) in both Scandinavian and English (cf. he, him, her). As the source of the base, IE n-, which is so prominent in Hittite, is an obvious choice.

4 Syntax vs. etymology

So far, we have seen that the strong adjective and determiner endings come from a set of pronominal enclitics affixed to various bases. While there are imponderables and irregularities that resist clarification, there is considerable regularity amidst the chaos that demands an explanation.

For example, let us consider the elementary observation that the process involved here is syntactic and not etymological. That is, in the case of the noun declension, it is possible to posit an IE form, such as *ghostis ‘stranger’ and follow the regular phonological (and somewhat less predictable semantic) developments that yield Lat. hostis ‘enemy’, Goth. gasts and NHG Gast ‘guest’. (The original meaning is ‘stranger’.)

With the pronominal constructions, however, we are dealing with a set of elements that can be freely combined with one another. The English pronoun him is obviously related to German ihm, but there is no regular phonological development to link the two. Instead, they represent the development of an enclitic -m combined with two different bases (IE -j-, ki-) although the languages involved are closely related. Hence, there is no way to explain these forms without investigating the underlying syntax. The principle of base + clitic is clear, but since it is not always the same base that is involved, we cannot speak of the evolution of a “word.”

Another indication that we are dealing with underlying syntax is the universality and robustness of the pronominal and strong adjective endings. While the nominal endings have decayed over time the pronominal endings are still quite distinct. Since the clitics are stressed when joined to simple bases (e.g., d + er), they are continually reinforced. When they are joined to independent bases of one or more syllables (e.g., dies + er, groß + er + er), they are not reduced because they have retained their “independent existence.” They are clitics, not endings.

One interesting problem can perhaps be solved through comparison to Hittite. Older German (up to Goethe) frequently left out the strong adjective ending in the nominative. This practice survives in expressions like gut Ding will Weile haben ‘a good thing needs time’, auf gut Glück ‘at random’. The traditional explanation is that these are survivals of the “nominal” adjective declension. The Germanic neut. sg. ending would have regularly been lost as with neut. nouns (cf. Lat. verbum ~ OHG wort).

There is, however, another possibility using the clitic analysis we have been employing here. Some languages allow the dropping of a pronominal subject, usually the subject is clear from the verb form anyway. Thus, Spanish hablo, hablas, habla, ‘I speak, you speak, he/she speaks’. The same is true of Latin and Hittite. The Hittite sentence mentioned above ta-še-an-si-kan tihsanzi ‘and they took her away from him’ could omit the enclitic -še- ‘they’. The base with no subject enclitic would then explain the nom. forms with no endings.

4.1 Co-occurrence: determiner and weak adjective

There are other unexplained facts as well. If the n-suffix identifies the adjective as definite, why is it always accompanied by a determiner (des großen Mannes) and why does the strong ending appear on the adjective when no determiner is present (großer Mann) or the determiner for some reason cannot support the clitic: ein großer Mann?

In the earliest stages of the Germanic languages, weak adjectives do appear alone under various conditions. For example, in Gothic after direct address: Usgang, ahma unrainja, us þam manna ‘go out, spirit unclean, out [of] this man’ (Mk V,8). Here, arguably, direct address makes the referent specific and requires the weak form unrainja rather than the strong unrain. It is worth noting that modern versions of the German Bible, in the absence of a determiner, have the strong inflection: du unreiner Geist. Here again, the differences have
nothing to do with “sound change,” but with syntactic change - no
determiner, strong ending.

Certainly, by the beginning of the nineteenth century at the latest,
meaning ceased to play a role in the selection of strong and weak
forms.

For the modern language, then, the -n must be regarded as an
ending, not a base. That is, the postposed -n article still seen in
Scandinavian has merged with the n-stem declension as seen in Middle
High German.

Except, of course for the feminine accusative singular, which agrees with the
nominative: MHG die zungen, NHG die böse Zunge ‘the nasty tongue’.

4.2 Relative clauses and the Hittite connection
We noted above the astounding similarity between Hittite sentence
patterns and modern German subordinate clauses. The similarity is
even more striking with relative clauses because the modern German
base da- is identical to the old Hittite (ca. 1650 B.C.) base ta-.
Consider the following construction:

(1) Der Mann (da- ich ihn da gesehen habe) ist wieder da. ‘The
man (and I saw him there) is back again.

At first glance this sentence seems to contain a bewildering number of
da’s. The one we are interested in is the clause introducing particle
(base), which is italicized, as is the clitic. The sentence as it stands is
rather shaky German, but perfect Hittite.

To make the German relative clause we simply move the clitic
(ihn) that refers to the head of the construction, der Mann, to the front:

(2) Der Mann (den ich da gesehen habe) ist wieder da. (da + ihn
= den)

This is what makes the relative clause. The clitic referring to the head
noun is favored over the usual (base + subj. + dir. obj. + indir. obj.
construction), e.g., dass ich es ihm gab.

If you were wondering, in Hittite it works the same way only that the
base kui- marks the relative pronoun (and the interrogative pronoun)
as in Latin, so we would have kuin for den. Hence, relative and
interrogative clauses are distinguished from noun clauses by choice of
base (sometimes) and by order of clitics (always).

4.3 A small distraction
There is a famous German proverb:

(1) Wes Brot ich esse, des Lied ich singe ‘Whose bread I eat, his
song I sing’.

It is perhaps comforting to observe that some things never change –
even if grammar does. The forms w + es, d + es, are just what we
would expect from our base + clitic analysis. In modern German,
however, we encounter forms with an “extra” -en.

(2) Wessen Brot ich esse, dessen Lied singe ich.

To this, we can add the feminine and plural form deren:

(3) Die Frau, deren Mann er beleidigte . . . . ‘The woman whose
husband he insulted’

(4) Die Frau, deren Kinder sie bestrafte . . . . ‘The woman whose
children she punished’

4.4 Another distraction – interrogative pronouns
The interrogative pronouns (question words) are similar to English
who, which, using the base w-:

<table>
<thead>
<tr>
<th>Animate</th>
<th>nom.</th>
<th>wer</th>
</tr>
</thead>
<tbody>
<tr>
<td>gen.</td>
<td>wessen</td>
<td></td>
</tr>
<tr>
<td>dat.</td>
<td>wem</td>
<td></td>
</tr>
<tr>
<td>acc.</td>
<td>wen</td>
<td></td>
</tr>
</tbody>
</table>
Note that the interrogatives have only two genders: animate and inanimate. There is no separate feminine, reflecting an earlier stage of the language before a separate feminine had been formed. There is also no separate plural. The lack of a plural reflects, perhaps, a practical uncertainty. If there is knock at the door, I can hardly predict whether one or more persons are there. Hence, \textit{Wer ist da?} 'who is there' without any contrast between singular or plural although the form is singular.

4.5 The adjective construction

The adjective construction can be seen as a simplification of the relative clause (with a subject, but no direct or indirect object). The $s$-subscript indicates a finite clause with a verb.

\begin{align*}
\text{(1) Der böse Hund} & = \text{Hund [d-er böse ist]}_s \\
\text{The relative clause has a verb of its own and the clitic naturally follows} & \text{ case form demanded by that verb - here the nominative. If we reduce} \\
\text{the relative clause, we get:} & \\
\text{(2) [Hund der böse]}_{\text{NP}} \\
\text{The postposed article + adjective is still possible in constructions like} & \text{ \textit{Alfred der Große}, \textit{Alfred the Great}. The usual construction, of} \\
\text{course, reverses the order of the constituents:} & \\
\text{(3) [der böse Hund]}_{\text{NP}} \\
\text{Since the reduced relative clause is incorporated into the noun phrase} &
\end{align*}

It has lost its independent clause status it follows the case of the noun:

\begin{quote}
\text{(4) Ludolf lächelte [den bösen Hund]} \text{ an.}
\end{quote}

Up to this point, it would appear that the definite article is only possible with an associated adjective. And, in fact, this is the case with certain related languages like Latvian (German’s Baltic neighbor to the east). Here, one cannot distinguish between \textit{a/the book} ‘grāmata’, but with adjective, \textit{a new book} ‘jauna grāmata’, \textit{the new book} ‘jaunā grāmata’.

4.6 Article + noun construction

The standard explanation of the article is that is a "weakened demonstrative." This cannot simply be dismissed. A reading of the Old English \textit{Beowulf}, probably the oldest original Germanic text that has come down to us, seems to confirm this. We can say in general that, there is no article where we would expect one, but the familiar \textit{the} (in all of its inflected forms) occurs where we would expect \textit{that} in the modern language.

In addition, we note that an accented form of the article is used for \textit{that} in modern German:

\begin{quote}
\text{(1) Ich kenne den Mann nicht.} ‘I don’t know the man’. \\
\text{(2) \textbf{Den} Mann kenne ich nicht!} ‘I don’t know that man’.
\end{quote}

Nevertheless, in the oldest sources, we also find the article referring to something already mentioned or assumed to be known to the speaker and hearer. Thus, in Wulfila’s Gothic translation of the Bible (ca. 350 A.D.), we read:

\begin{quote}
\text{(3) ik im hairdeis godis. hairdeis sa goda saiwala seina lagiḫ faur lamba.} ‘I am shepherd good. Shepherd the good soul his lays-down for lambs’. (John 10:11)
\end{quote}

This not at all in accordance with modern usage and does not exactly
follow the Greek original either (in both cases: *ho poimon ho kalos* ‘the shepherd the good’).

Wulfila, in contrast to Martin Luther, did not try to produce a powerful popular version of the Bible. His translation follows the word order of the Greek original as closely as possible – but, without doing violence to the Gothic language as shown by numerous differences between the Greek and Gothic texts like the one cited here.

“Good shepherd,” apparently a novel concept, is introduced without the article. In the following sentence, it is referred to with the article. This is once again reminiscent of the Hittite practice. That is, the sentence introducing particle + clitic continues the narrative. Here, of course, *sa goda* is postposed in order to maintain the Greek word order. But, the following would be equally appropriate:

(4) *ik im gods hairdeis. sa goda hairdeis lagiþ seina saiwała faur lamba.* ‘I am good shepherd. The good shepherd lays-down his soul for lambs’.

The first sentence introduces the topic “good shepherd” and the following sentence continues it with the particle *sa* and the zero enclitic.

In any case, the “weakened demonstrative” hypothesis would not be of much help since it would, at best, define the circumstances under which the article is used – not its origin.

4.7 Resumptive pronoun

The best candidate for base + enclitic where no adjective from a reduced clause is available is a resumptive pronoun. Resumptive pronouns, which arise in relative clauses, are rather unpopular in the world of syntax. If they refuse to cliticize they are generally destroyed. Consider:

(1) It was such a day *as* we seldom see *θ* in Munich.

(2) Es war solch ein Tag, *wie wir ihn* in München selten sehen.

The sentence introducing particles *as, wie*, cannot serve as bases. English deletes the resumptive pronoun, German, for reasons unknown, retains it.

Resumptive pronouns are also well-known in familiar languages like French:

(3) Pascale et mois, *nous sommes allés au cinéma*. ‘Pascale and me, we went to the movies’.

(4) Pascale, *êtes elle ici?* ‘Pascale, is she here?’

In French, a resumptive pronoun is required with a compound subject as in (3) or in a question as in (4).

We can propose a similar construction for the noun with definite article:

(5) *Da Hund er* beißt == > *Da + er Hund* beißt == > *Der Hund* beißt..

The rule here would be no definite noun phrase without the base, no verb without the clitic. If an adjective is present, it provides the article, otherwise the article comes from the “continuative” noun construction, appx.:

(6) He has a [one] dog and [da] dog *he* bites.

The rule is rather difficult to maintain because it is abstract. The historical and comparative evidence is suggestive, but not conclusive. The overhead is that every noun phrase must be derived from a base + enclitic + (adjective) + noun.

The alternative is simply to list the forms and say – that’s the way it is. The present account does, however, have the advantage of explaining the remarkable resemblance between article, demonstrative, strong adjective, interrogative and relative pronoun endings. They look the same because they have the same source: base + clitic. The clitic theory also provides an explanation for the “robustness” of these endings. They have not been worn away by time because they are continually reinforced by the accented one-syllable forms, *er, d+er*
reinforce *groß* + *er* + *er*. On the other hand, the *n*-stems (weak adjectives), which no longer serve as bases have been reduced, that is they really are weak!

5 Comparison of adjectives
The Greek and Latin grammarians considered nouns (nomina substantiva) and adjectives (nomina adjectiva) to be subdivisions of the same category (nomina). So we have “substantive” nouns and those that are thrown in (*adjectivum* ‘das Hinzugeworfene’). The reason for this classification was in part based on the fact that nouns and adjectives shared the same declensional endings (e.g., Lat. *dominus bonus* ‘good master’). There are, however, more substantial reasons for this classification. Constructions like the Biblical Greek *ho poiēn ho kalos* invite nominal interpretations ‘the shepherd the good one’.

In any case, adjectives are distinguished from nouns by their subordinate nature (we have seen above that they are derived from subordinate clauses). That is, adjectives follow the nouns they modify in case and number (Lat. *dominus bonus* ‘good master’, *domina bona* ‘good mistress’).

The other characteristic of adjectives that distinguishes them from nouns is comparison: *dumm* ~ *dümmer* ~ *dümmerste* ‘dumb ~ dumber ~ dumbest’. In contrast to English, German applies the comparative and superlative endings to all adjectives – not just to those of one syllable, or two syllables ending in -y (cf. big ~ bigger ~ biggest; happy ~ happier ~ happiest). Thus, for *successful* ~ *more successful* ~ *most successful*, we have *erfolgreich* ~ *erfolgreicher* ~ *erfolgreichste*.

One-syllable adjectives (like *dumm*) can umlaut the vowel in the comparative and superlative (*dümmer* ~ *dümmerste*) or not. The origin of this peculiarity is historical. The comparative in OHG was formed either with the suffix -*ir* (with subsequent *i*-umlaut) or -*or* (without umlaut). Similarly, the superlative was formed with -*ist* or -*ost*. Adjectives of two or more syllables took -*or*. Single syllable adjectives took one or the other or both, e.g. OHG *hoh* ~ *hohiro* or *hokoro*. The modern language has decided here for umlaut: *hoch* ~ *höher* ~ *höchste*. In MHG, the weakening of the vowels in inflectional syllables caused the two variants to fall together into -*er*. This led to confusion and
Chapter 11: Personal pronouns and numbers

1 Personal pronouns

After the excitement occasioned by the third person anaphoric (referring) pronoun and the adjectives, the first and second person pronouns are relatively tame. Here is a table of the modern forms:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>ich</td>
<td>du</td>
<td></td>
<td>---------</td>
</tr>
<tr>
<td>Genitive</td>
<td>mein(er)</td>
<td>dein(er)</td>
<td></td>
<td>---------</td>
</tr>
<tr>
<td>Dative</td>
<td>mir</td>
<td>dir</td>
<td>sich</td>
<td>---------</td>
</tr>
<tr>
<td>Accusative</td>
<td>mich</td>
<td>dich</td>
<td>sich</td>
<td>---------</td>
</tr>
<tr>
<td>Plural</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominative</td>
<td>wir</td>
<td>ihr</td>
<td></td>
<td>---------</td>
</tr>
<tr>
<td>Genitive</td>
<td>uns(er)</td>
<td>euer</td>
<td></td>
<td>---------</td>
</tr>
<tr>
<td>Dative</td>
<td>uns</td>
<td>euch</td>
<td>sich</td>
<td>---------</td>
</tr>
<tr>
<td>Accusative</td>
<td>uns</td>
<td>euch</td>
<td>sich</td>
<td>---------</td>
</tr>
</tbody>
</table>

Here some remarks on the individual forms:

First Person:

Singular:
Genitive: from the possessive pronoun *mīn*. The form is now obsolete, but note the name of the flower *Vergissmeinnicht* ‘forget me not’. Most genitive objects have been replaced by accusative objects: *vergiss mich nicht* ‘don’t forget me’. With the preposition *wegen* ‘because of’ now *meinetwegen* < *meinen(t)wegen* ‘of my ways’ rather than *wegen meiner*. 
The German Language – A Guide for Inquisitive Students 159

2 Numerals

2.1 Cardinal numbers

The cardinal numbers (those used for counting) present a number of interesting aspects. Since these numbers are the basic raw material for language comparison, it will be instructive to look at the reconstructed Indo-European form of the first ten along with the forms of some of the daughter languages.

2.1.1 The numbers one through ten

<table>
<thead>
<tr>
<th>PIE</th>
<th>Latin</th>
<th>Gothic</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ojnos</td>
<td>unus</td>
<td>ains</td>
</tr>
<tr>
<td>2</td>
<td>duo</td>
<td>du</td>
<td>twai</td>
</tr>
<tr>
<td>3</td>
<td>trejes</td>
<td>tres</td>
<td>³reis</td>
</tr>
<tr>
<td>4</td>
<td>kwetor(es)</td>
<td>quattuor</td>
<td>fidwor</td>
</tr>
<tr>
<td>5</td>
<td>penkwe</td>
<td>quinque</td>
<td>³imf</td>
</tr>
<tr>
<td>6</td>
<td>seks</td>
<td>sex</td>
<td>sehs</td>
</tr>
<tr>
<td>7</td>
<td>septm</td>
<td>septem</td>
<td>sibun</td>
</tr>
<tr>
<td>8</td>
<td>oktō(u)</td>
<td>octo</td>
<td>ahtau</td>
</tr>
<tr>
<td>9</td>
<td>newn</td>
<td>novem</td>
<td>niun</td>
</tr>
<tr>
<td>10</td>
<td>dekm</td>
<td>decem</td>
<td>tehun</td>
</tr>
</tbody>
</table>

The so-called reflexive pronoun has the PIE base se (cf. Lat. se). There is no nominative. The genitive forms are those of the personal pronouns. The modern language uses the accusative form sich (er/sie wäscht sich ‘he/she washes him-/herself’) for singular and plural, dative and accusative: (er/sie hilft sich; sie helfen sich). Hence, sie hilft ihm ‘she helps him’, but sie hilft sich ‘she helps herself’. We will have more to say about sich in the Chapter on German syntax.
Notes:

1. The numerals one to four were declinable in Proto Indo-European. Some traces remain in modern German. The numeral one, which doubles with the indefinite article, is still declined, but according to the base + clitic pattern discussed above. The number used in counting, eins, is from the neuter OHG einaz.

2. In OHG three forms: zwéne, m., zwei, n., zwó, f. The neuter form survives as the standard numeral, but the old feminine form is used in acoustically difficult situations (as on the telephone) to prevent confusion with drei. The gen. plur. is also in use: der Diener zweier Herren ‘the servant of two masters’, but colloquially der Diener von zwei Herren. The dative, e.g., wir waren zu zweien has been replaced by wir waren zu zweit ‘there were two of us’. Similarly, zu dritt, zu viert, etc. indicating groups of various sizes. In compounds, we find the form zwie- as in Zwiegespräch ‘dialog’, zwiespältig ‘conflicting’, Zwiestreit ‘conflict’, with shortened vowel Zwilling ‘twin’.

3. Gen. plur. also in use: die Aussagen dreier Zeugen ~ die Aussage von drei Zeugen ‘the testimony of three witnesses’.

4. The Germanic form is clearly not derived from the PIE *kwetwor, but from *pedwor. The p is borrowed from the numeral five.

5. Here again the Germanic form diverges from the source: *penkwe > *penpe > *pempe > OHG fimf. Two separate processes of assimilation are involved here. The development of the modern form is somewhat obscure. Perhaps, fimf > fimf between bilabial f and m. This may still be reflected in the colloquial pronunciation of the compound forms, e.g., 35 = fimf un’ dreißig. The final f would then have fallen together with the labio-dental High German f < p (Schiff ~ ship), causing unrounding of the nasal m > n. If this analysis is correct, we can conclude that Germanic f/v (where English and German agree on a fricative, e.g. father ~ Vater) was originally bilabial and High German f(where English has p) was originally labio-dental. See, however, the discussion of “Vogel-V” above. In the dialects we find both fimf and fimf.

6. Development as expected.

7. Germanic has lost the t of the PIE form. Perhaps, through dissimilation of the first t in the ordinal number (see below): *septm-to > *sepm-to, which was carried over to the cardinal number *sepm > OHG sibun, NHG sieben.

8. Development as expected. Interesting is the special development of the group kt in oktau. The First Sound Shift affects both k and t, turning them into fricatives χ and b. The shift is, however, suppressed if a fricative precedes, cf. Lat. stare ~ OHG stan ‘stand’, where t is unshifted after the fricative s. In *oktau, there are two candidates for shifting. As it is, k > χ and the new fricative blocks the shift of t > b, yielding acht. Since the rule applies to all stops at the same time, the resultant form can only be explained by assuming that it applies from left to right, shifting k, the first stop it encounters, and skipping t, because a fricative now precedes. If the rule applied from right to left, both stops would be shifted.

9. Development as expected.

10. Development as expected.

2.1.2 The numbers eleven to nineteen

The numbers eleven and twelve, OHG einlif, zwelif, mean literally ‘one left, two left’ (after subtracting ten). A similar construction is found in Lithuanian, where it is carried through to nineteen. The vowel of modern zwelif, is due to the rounding influence of w – older zwelf. The other “teens” are compounded with ten – Goth. fimfsehan, ‘five-ten’.
2.1.3 The decades
The decades twenty to sixty are compounded with the noun *tigus which is related to Goth. tehun ‘ten’, e.g. forty = Goth. fidwor tigus, OHG fiorzug, NHG vierzig. In the modern language (as in English), this system is carried through to ninety. One hundred is from hund + rad ‘hundred tally’, cf. Goth. raþjan ‘to count’. The root hund is cognate to Lat. centum < PIE *kntóm, the usual Indo-European word for ‘hundred’.

The older languages (Gothic, Old English, Old Saxon, Old High German) show considerable variation here. In Old Icelandic hundrað usually means ‘one hundred twenty’, which some see as evidence of influence from the Babylonian sexagesimal system!

The reconstruction of one hundred as *kntóm rather than *kmtóm as in the handbooks is deliberate. The m in the traditional reconstruction is based on the evidence of Lith. šimtas, Latv. šimts. The other Indo-European languages show reflexes of n or are undecided between m and n. Since the assimilation mt > nt is more likely than the dissimilation nt > mt, it would seem that exception would make the rule in this case. In addition, it is possible that the words for ten and one hundred are related. Thus *dekm ‘ten’ and *dkm-tóm > kmtóm. It is also possible that Baltic languages (Lithuanian and Latvian) simply dissimilated nt > mt. The matter remains undecided.

2.1.4 Hundreds, thousands, millions
The hundreds are mostly uneventful, being compounded from simple numbers plus hund or hundert, e.g., three hundred = OHG driu hunt, NHG dreihundert.

The origins of the word thousand are somewhat obscure. It is possibly from PIE *tus ‘strong’ + *kntje ‘group of one hundred’. Even more mysterious is the irregular correspondence between English thousand ~ NHG tausend. Since initial /ð,ð/ in English always corresponds to NHG /d/, in related words, e.g., thing ~ Ding, this ~ dies, we would expect modern dausend. In Old High German, we really do find dásund, as expected, modern tausend is one of a few words in the standard language from Upper German, where h and d fall together early and regularly become t.

The word million is ultimately derived from the Lat. mille ‘thousand’ via Italian. In German, it is always a noun: die Million, -en, hence two million people = zwei Millionen Menschen, with the plural. A further complication is die Milliarde, -en, a word from French which is used for a thousand million = U.S. ‘billion’. In German, eine Billion, -en is a million millions = U.S. ‘trillion’ and so on with U.S. English one step ahead into the far reaches of outer space.

In conclusion, it is probably worth mentioning that the ordinary thousands separator in German is the period, the comma being reserved for the decimal point. Thus U.S. 1,000.25 = German 1.000,25.

2.2 The ordinal numbers
Ordinal numbers, as the name suggests, indicate not the tally, but the position of an object in a collection, e.g., first, second, third, etc.

Notes:

1. Both Old English and Old High German use the roots for ‘before in position’, cf. NHG vor and Ø ‘before in time’, cf. NHG eher ‘earlier’. To this, the superlative suffix -st is added (as in biggest). English generalizes the first root in first and German the second root in erst.

2. German has zweit- as in zweite Klasse ‘second class’. This is formed from the numeral zwei + tjo. The same construction is seen in Lat. ter-tius, Eng. third. Originally, the word for ‘second’ was OE ðéor, OHG ander. This usage is preserved in phrases like am anderen Tag ‘on the next (second) day’ or English every other day ‘every second day’.

3. The ordinals four and above are formed with the superlative suffix -to-, (NHG -te-) e.g., vierte, fünfte, sechste, etc., cf. Lat. quartus, quintus, sextus, etc.
Chapter 12: Syntax

1 The vastness of syntax

Most likely syntax in general and German syntax in particular is not vast at all – just a bit difficult to pin down. The nature of the problem is clear. In dealing with the sounds of German, we were confronted with some forty odd discrete distinctive sounds. The forms of German (nouns, pronouns, adjectives, verbs) are more numerous, but still confined to a rather small number of elements. Here, we were able to reduce memory work by discovering certain governing principles (base + clitic), verb conjugations, etc.

When it comes to syntax, however, there are no discrete elements to list. There is no way we could list German sentence patterns as we can distinctive sounds or word inflections. The only meaningful approach to German syntax is to look at the underlying principles which determine how a sentence may be put together.

In what follows, I will try to give you an idea of how this might work. Unfortunately, a “complete” German syntax would be far beyond the scope of this book (even if I or anyone else had one to offer). So we will content ourselves here with a few important principles of modern German syntax that are likely to surprise speakers of English and other civilized languages.

2 The V-II rule

Perhaps a good place to start is with the V-II rule, a basic rule of German constituent order that says that the finite (inflected) verb in a declarative clause is in the second position (V-II = verb second. If you don’t get the joke – just as well). Consider the following variants of I saw him yesterday:

(1) a. Ich habe ihn gestern gesehen.
    b. Gestern habe ich ihn gesehen.
    c. Ihn habe ich gestern gesehen.
    d. Gesehen habe ich ihn gestern.
This small illustration should serve to make the point that listing the possible patterns a German sentence might take is a futile task. By taking (1) a. and (2) a. as “basic,” we can, however, easily generate the seven variants with two reordering rules.

Rule 1: **Topicalization** – A verb phrase constituent (i.e., the verb or one of its objects or modifiers, *ihn, gestern, gesehen*) can optionally be moved to the front of the clause.

Rule 2: **Verb-Subject Inversion** – In case of Topicalization, the verb and subject must be inverted to keep the verb in second position as required by the V-II rule.

Note that these two rules also interact with **Question Formation**. Fronting the verb in (1) d. is fine, but the verb cannot be fronted in (2) without creating confusion between a question and a topicalization:

*Sah ich ihn gestern.*

3 **Brackets**

Another basic principle of German syntax, which interacts with those mentioned above is the bracket rule. This rule simply says that the rest of the content of the sentence is squeezed in between the auxiliary and the main verb:

(1) *Ich werde es ihr morgen auf der Sitzung der Kommission sagen.* ‘I will tell her tomorrow at the meeting of the commission.’

(2) a. *Ich sah ihn gestern.*

b. *Gestern sah ich ihn.*

c. *Ihn sah ich gestern.*

Within the brackets, German constituent order is much freer than is the case in English. The three constituents within the brackets (*meinen Freund, gestern, auf dem Bahnhof*) can appear in any order at all depending on stylistic emphasis:

(3) a. *Ich habe meinen Freund gestern auf dem Bahnhof gesehen.*

b. *Ich habe gestern meinen Freund auf dem Bahnhof gesehen.*

c. *Ich habe auf dem Bahnhof meinen Freund gestern gesehen.*

d. *Ich habe gestern auf dem Bahnhof meinen Freund gesehen.*

e. etc. This is **Verb Phrase Inversion**. The Verb Phrase (VP) contains the verb (here *gesehen*) and all its objects and modifiers. This operation involves reordering of adjacent VP constituents.

Since even seasoned native speakers of German can forget the verb if too much intervenes after the auxiliary, German syntax allows **Right Dislocation** of unnecessary elements:

(4) a. *Ich habe meinen Freund gestern gesehen – auf dem Bahnhof.*

b. *Ich habe meinen Freund auf dem Bahnhof gesehen – gestern.*

Necessary elements (e.g., the verb *sehen* as used here demands a direct
object) cannot be placed outside the brackets:

(5) a. * Ich **habe auf dem Bahnhof gestern** gesehen – meinen Freund.

4 Scrambling
The individual principles we have considered above collectively lead to the phenomenon sometimes termed “scrambling” – the impression that in German “word order” anything goes. Nothing could be farther from the truth. Given a sentence with six constituents, \(6! = 720\) combinations would be possible, but only 20 are in fact “legal” sentences of German. Consider the following set of sentences:

(1) Ich habe meinen Freund gestern auf dem Bahnhof gesehen.
(2) Meinen Freund habe ich gestern auf dem Bahnhof gesehen.
(3) Gestern habe ich meinen Freund auf dem Bahnhof gesehen.
(4) Auf dem Bahnhof habe ich meinen Freund gestern gesehen.
(5) Gesehen habe ich meinen Freund gestern auf dem Bahnhof.
(6) Ich habe gestern meinen Freund auf dem Bahnhof gesehen.
(7) Ich habe gestern auf dem Bahnhof meinen Freund gesehen.
(8) Meinen Freund habe ich auf dem Bahnhof gestern gesehen.

(9) Gestern habe ich auf dem Bahnhof meinen Freund gesehen.
(10) Auf dem Bahnhof habe ich gestern meinen Freund gesehen.
(12) Gesehen habe ich gestern auf dem Bahnhof meinen Freund.
(13) Ich habe meinen Freund gestern gesehen auf dem Bahnhof.
(14) Ich habe meinen Freund gesehen gestern auf dem Bahnhof.
(15) Meinen Freund habe ich gestern gesehen auf dem Bahnhof.
(17) Gestern habe ich meinen Freund gesehen auf dem Bahnhof.
(18) Auf dem Bahnhof habe ich meinen Freund gesehen gestern.
(19) Gestern auf dem Bahnhof habe ich meinen Freund gesehen.
(20) Auf dem Bahnhof gestern habe ich meinen Freund gesehen.
The first twenty variations of sentence (1) are obtained by applying the transformations cataloged above: Topicalization, Verb-Subject Inversion, Verb-Phrase Inversion, Right Dislocation.

The “illegal” starred sentences (21) - (22) simply cannot be produced by application of the rules to the initial form (1). In (21), Verb-Subject Inversion has failed to apply, in (22), an essential element (the direct object) has been moved to the right of the bracket.

4.1 Lessons to be learned
It should be clear from the data above that the “vastness of syntax” can only be explained as the result of an interaction of rules. Memorizing the twenty “legal” patterns above would be a formidable task for native and foreign speakers alike. Even if we could assume that every one exposed to the German language could have learned from experience that sentences (1) - (20) are legal, this would not explain how we know that (21) - (22) are “illegal.” Having encountered and memorized twenty patterns, how would we know that (21) and (22) are not just further patterns we have not yet encountered? Clearly, we eliminate the seven hundred “illegal” possibilities because they do not fit the rules, not because we have never heard them before. The rules themselves can, of course, be distilled from the simplest sentences we are confronted with by experience.

5 Verb at the end of subordinate clauses
If the V-II rule reigns in main clauses, it is nonetheless confounded in subordinate clauses, where the finite verb appears at the end of the clause as the last element in a string with an infinitive or a participle:

(1) Der Mann, dem er die Blutwurst gegeben hat, . . . .
‘the man who he gave the blood sausage . . . .’

(2) Renate hofft, dass Ludolf den Buchpreis gewinnen wird, ‘Renate hopes that Ludolf will win the book prize’.

If two or more infinitives are involved, the finite verb precedes them:

(3) Wenn Du Deinen Job hättest behalten wollen, . . . .
‘If you had wanted to keep your job . . . .’

This principle seems rather bizarre at first, but is, in fact, far less so than the agonizing English construction with periphrastic construction of the modals (e.g., to be able for can). Consider the following example with Bracketing in the main clause:

(4) Wenn Du Deinen Job hättest behalten wollen, hättest Du Tee machen müssen. ‘If you had wanted to keep your job, you would have had to have been able to make tea.’

In a subordinate clause, we can get up to four verbs in a row:

(5) Dass Jenny Tee hätte machen wollen müssen, war natürlich eine Zumutung. ‘That Jenny should have had to want to make tea was, of course, an unreasonable demand’.

Admittedly, we are pushing both languages to their syntactic limits here. But, the differences are not so profound. Both languages string out a series of modals or substitute constructions in accordance with basic word order.
Interestingly, German seems to set the limit at one finite verb plus three infinitives. Native speakers of German reject sequences with four infinitives like hätte machen wollen können müssen. Either wollen or können has to go. Competent speakers of German, who are native speakers of English have, however, no problems with sentences like: Dass Jennie Tee hätte machen wollen können müssen, war natürlich eine Zumutung. It is unlikely that this is a matter of grammar. Rather it would seem that English native speakers use a different parsing strategy than native speakers of German. The native German parser overloads on four infinitives, but the English-German parser does not.

6 Prefixes separable and inseparable

In both German and English we have verbs that are combined with particles in both separable and inseparable constructions. In both languages, we have the inseparable prefixes be-, for-/ver-: begin ~ beginnen, forget ~ vergessen. These prefixes are now permanently fused with the verb. Their meaning is somewhat obscure. The prefix be-, for example, makes transitive verbs: gehen ‘go’, begehen ‘commit (a mistake), celebrate (a festival), examine by walking around, etc.’ The basic meaning seems to be to set something in motion or to walk over something. The prefix ver- has three different origins (Goth. fair-, for-, fra-). Thus, we have a variety of meanings as in Die Zeit vergeht ‘Time flies’; Die Liebe vergeht ‘Love fades’, sich an jemandem vergeben ‘to indecently assault some one’.

The separable prefixes are more transparent in meaning. We have ab- ‘off, away’ and reisen ‘travel’ yielding abreisen ‘depart’ or ab- + brechen ‘break’ = abrechen ‘to break off’. As the glosses indicate, English either uses prefixed verbs of Latin origin like depart or verb plus particle constructions like break off. In German, the prefixes precede the verb (that’s why they are called prefixes) in infinitive and participial constructions: abzubrechen ‘to break off’, abgebrochen ‘broken off’.

In English, the particle can either precede or follow a complex object, but must follow a pronominal object:

| (1) | a. Ludolf set up the tent.  
     | b. Ludolf set the tent up.  
     | c. Ludolf set it up.  
     | d. * Ludolf set up it. |

In German, the particle must always follow:

| (2) | Ludolf stellte das Zelt(es auf. |

Another important difference is that the particle always follows the object noun phrase in English, but may follow the noun phrase or be placed at the end of the sentence in German:

| (3) | a. Ludolf stellte das Zelt auf, das seine geliebte Clotilde ihm geschenkt hat.  
     | b. Ludolf stellte das Zelt, das seine geliebte Clotilde ihm geschenkt hat, auf. |

Mark Twain in his essay “The Awful German Language” gives an example in translation of a sentence with 77 words between the verb and the particle!

The trunks being now ready, he DE- after kissing his mother and sisters, and once more pressing to his bosom his adored Gretchen, who, dressed in simple white muslin, with a single tuberose in the ample folds of her rich brown hair, had tottered feebly down the stairs, still pale from the terror and excitement of the past evening, but longing to lay her poor aching head yet once again upon the breast of him whom she loved more dearly than life itself, PARTED.
7 Preposed participial constructions

Both English and German have reduced, participial relative clauses. In English, the source of the construction is quite transparent. The relative pronoun (who, which) is deleted along with the form of the verb be. This is the case for both the continuous verb form (is falling) and the passive (was printed). See the examples below. In English, however, only simple participles can be preposed, extended participles remain behind the nouns they modify:

(1) a. Snow (which is) falling is lovely to watch.
   b. Falling snow is lovely to watch. (Relative Clause Reduction with preposing)

(2) a. The man (who is) standing at the door is Ludolf's father-in-law.
   b. The man standing at the door is Ludolf's father-in-law. (Relative Clause Reduction)

In German, all participial constructions are preposed whether simple or extended:

(3) a. Schnee, der fällt, ist schön zu betrachten.
   b. Fallender Schnee ist schön zu betrachten.

(4) a. Der Mann, der an der Tür steht, ist Ludolfs Schwiegervater.
   b. Der an der Tür stehende Mann ist Ludolfs Schwiegervater.

The passive construction with Relative Clause Reduction is illustrated by:

(5) a. A Bible (which was) printed by Gutenberg was presented to the library.
   b. Eine von Gutenberg gedruckte Bibel wurde der Bibliothek überreicht.

To be sure, the preposed extended participle is rarely used in conversational German. It does, however, occur in literary, particularly in newspaper, texts. In “The Awful German Language,” Mark Twain gives us this wonderful nineteenth-century example (old spelling):

(5) Wenn er aber auf der Straße der in Satin und Seide gehüllten jetzt sehr ungeniert nach der neuesten Mode gekleideten Regierungsrätin begegnete... 'But when he, upon the street, the (in-satin-and-silk-covered-now-very-unconstrained-after--thenewest-fashion-dressed) government counselor's wife met...’ [from The Old Mamselle's Secret, by Mrs. Marlitt]

8 Stranding

In the discussion of adjectives and pronouns, we showed that relative pronouns in German are formed from the base da- plus a pronoun that is moved forward and forms an enclitic:

(1) a. Der Mann, da- Sie ihn gesehen haben, ‘The man who you saw him’
   b. Der Mann, da+ihn Sie gesehen haben, ‘The man who+him you saw’ (Fronting)
   c. Der Mann, den Sie gesehen haben, ‘The man who(m) you saw’ (Clitic Formation)

A special problem arises when the relative pronoun is the object of a preposition. In this case, the entire prepositional phrase may be moved...
to the front in English:

(2) a. The man who you spoke with him
    b. The man with whom you spoke

Normally, however, the pronoun is simply deleted “stranding” the preposition without an object:

(3) The man who you spoke with θ

In German, preposition stranding is not possible here. The only possibility is:

(4) Der Mann, mit dem Sie gesprochen haben

With inanimate objects or abstractions (those that allow *da* + preposition), the relative clause can begin with the base *wo* + preposition:

(5) a. Das Brecheisen, womit/mit dem Igor den Sarg geöffnet hat, ‘the crow bar that Igor opened the coffin with’
    b. Die Probleme, worüber/über die wir gesprochen haben, ‘the problems that we talked about’

Here, German, like English , allows relativization by deleting the clitic in the relative clause, but the preposition must be fronted and cannot be stranded as in English.

9 Long distance movement

Long distance movement refers to the possibility of moving clitics out of their home clauses over other clauses to the head of the sentence. Once again, English can do this and German cannot.

(1) a. The chauffeur drove Regie to the station.
    b. *WH-* the chauffeur drove *him* to the station?

With fronting of the clitic, this is resolved as:

(2) *Who(m)* did the chauffeur drive to the station?

The situation in a single clause sentence is no different in German:

(3) a. Der Fahrer hat Regie zum Bahnhof gebracht.
    b. *W-* der Fahrer hat *ihn* zum Bahnhof gebracht?
    c. Wen hat der Fahrer zum Bahnhof gebracht?

The difference first becomes apparent when the question is in an embedded clause:

(4) a. Lady Farnsworth told the chauffeur [to drive *him* to the station]?
    b. *Wh-* did Lady Farnsworth tell the chauffeur [to drive *him* to the station]?
    c. *Who(m)* did Lady Farnsworth tell the chauffeur [to drive θ to the station]?

In German the first sentence works as expected. In the second sentence, the attempt to remove the interrogative from the imbedded clause (in brackets) fails:
a. Lady Farnsworth sagte dem Fahrer, [er sollte ihn zum Bahnhof bringen]?

b. * Wen sagte Lady Fransworth . . . .

This discrepancy can lead to odd results. Consider:

(6) Why do you think [that O.J. did it]?

This sentence has two readings since the interrogative why could originate in either the main clause (questioning think) or in the subordinate clause (questioning did), i.e., ‘What is your reason for thinking that O.J. did it?’ or ‘What do you think was O.J.’s reason for doing it?’

The German equivalent only has one reading:

(7) Warum glaubst Du, [dass O.J. es getan hat]? ‘What is your reason for thinking that O.J. did it’?

This follows from the fact that the interrogative can only stand in the clause in which it originated. Hence, warum can only question glaubst Du. In order to express the other reading, colloquial German uses a rather odd construction that nevertheless overcomes the difficulty by leaving warum in the embedded clause:

(8) Was glaubst Du [warum O.J. es getan hat]?

Naturally, there is another way of doing this with a parenthetical glaubst Du:

(i) Warum hat O.J. es getan?
(ii) Warum (glaubst Du) hat O.J. es getan?

There is no movement out of a dependent clause here.

The German Language – A Guide for Inquisitive Students

10 Ellipsis and “shadow pronouns”

One feature of connected speech is that we tend not to repeat elements that have been mentioned before and can be filled in from context. This is called ellipsis. Consider the following examples in English and German. In each of these parallel cases the element in parentheses is normally left out:

(1) a. Susi is dumb and I am (dumb) too.
   b. Susi ist doof und ich bin es (doof) auch.

(2) a. Ludolf is for Bush and Renate is (for Bush) too.
   b. Ludolf ist für Bush und Renate ist es (für Bush) auch.

(3) a. He is taller than I am (tall).
   b. Er ist größer als ich es (groß) bin.

(4) a. Renate often exaggerates and Ludolf does (exaggerate) too.
   b. Renate übertreibt oft und Ludolf (tut es) auch.

(5) a. I am drunk and you are (drunk) too.
   b. Ich bin betrunken und Du bist es (betrunken) auch.

The striking difference is that German must leave a marker behind – the “shadow pronoun” es. Like Lamont Cranston, the hero of the famous 1940s radio series, revived in a 1994 feature film, sometimes you see the shadow and sometimes you don’t, but it is nevertheless there. Eliding adjectives as in (1) and (3), prepositional phrases as in (2), infinitives as in (4) or participles as in (5) leaves behind a visible shadow in German. In English an invisible shadow pronoun becomes an enclitic leaning on the first word of the second sentence.

To see that this is so, consider the following odd data:
(6) a. I am taller than he is.
b. I’m taller than he is.
c. He is taller than I am.
d. He’s taller than I am.

Evidently, the pronoun and the auxiliary can contract: \( I \text{ am} \rightarrow I’ \text{m} \), \( he \text{ is} \rightarrow he’\text{s} \), but notice that they cannot contract after \( than \) in the comparative construction:

(7) a. *I am taller than he’s
b. *He is taller than I’m.

Assuming the derivation is:

(8) a. I am taller than he is tall.
b. I am taller than he is \( s \) (Ellipsis - Shadow Pronoun Formation).
c. I am taller than he \( s \) is (Cliticization).

The shadow pronoun \( (s) \) intervening between \( he \) and \( is \) would explain the failure of subject and auxiliary to contract as they do freely in the first clause were no deletion and no shadow pronoun is involved.

The tendency of clitics to attach themselves to the first word in the clause was pointed out by J. Wackernagel in 1892 and is usually called “Wackernagel’s Law.” The term “shadow pronoun” was used by David Perlmutter (1972) to explain various phenomena in French. The failure of comparatives to contract was pointed out by Robert Stockwell around the same time. This explanation goes back to Block (1984:235).

The same principle can be used to explain the familiar, but puzzling \( Ich \ text{ bin es} \).

(9) a. Who’s there?
b. I am./ *I’m.

(10) a. Wer ist da?
b. Ich bin es/ Ich bin’s.

The shadow pronoun \( es \) is the representative of a longer constituent, something like \( ich \ text{ bin} (\text{derjenige, der da ist}) \) ‘I am (the one who is there)’. In both languages, the noun phrase after the copula \( bin/am \) is reduced to a shadow pronoun. In English, contraction is impossible because the shadow pronoun is cliticized and intervenes between \( I \) and \( am \). In German, where the shadow pronoun is overt and stays put, it can contract with the verb. Thus, the equivalent of Germ. \( Ich \ text{ bin es} \) really is \( I \text{ am it} \), only the \( it \) is invisible and stands between subject and verb!

It is worth noting that cliticization and blocking of contraction in English does not occur in negative contexts: \( Who \text{ is there? He is/ *He’s, but Who is there? He is not/He’s not.} \)

10.1 Cross-linguistic syntax

The above analysis is a good example of cross-linguistic syntax – using English data to clarify German syntax and German data to clarify English syntax. Purists will certainly not be pleased with this approach. Why? Well, most child learners of German know nothing about English, and few child learners of English are ever exposed to German. So how can English data have a bearing on German structure (what Germans know about their language) and vice versa?

The answer is quite simple. We are not comparing the language-learning experience of German- and English-speaking children. We are comparing what they learn. German and English are “affectionate sisters” with strong family similarities – not just in their sound systems and verb inflection, but in their syntax as well. In some cases, the details in one language may be dark and obscure, while in the other language clear and obvious. Why not let the light shine in?
11 What about me – disjunctive pronouns

In addition to I am, we may also answer It's me or simply me to the question Who's there? This informal use of me has long been condemned by the school grammars as a false use of the “objective” case (cf. me in She hit me). Nothing could be further from the truth – which explains the inability of school teachers to stamp out this form.

In fact, me in this construction is the equivalent of the French disjunctive pronoun moi as in C'est moi ‘it’s me’, or, in the same context, simply Moi ‘Me’. To be sure, the object forms and the disjunctive forms are identical in English (me ~ me) while French has different forms for the objective and disjunctive: me ~ moi. The identity of English forms should not, however, obscure the identity of construction between French and English. A further example is offered by conjoined subjects:

(1) Him and me went to the movies.
(2) Lui et moi, nous sommes allés au cinéma.

Notice that French requires the resumptive pronoun nous, where English does not.

In the 1960s Klima worked out a rule for English, which we can make more precise here:

A single pronoun standing before a verb must be in the nominative case. Single objects of verbs or prepositions take the objective case. Conjoined objects may take nominative or disjunctive in the second element. Conjoined subjects are free as to choice of case, except that I cannot precede a disjunctive.

This illustrated in the following as well as the above examples:

(3) a. I went to the movies.
 b. * Me went to the movies. (single subject)

(4) a. She sent a message to him and me.
 b. She sent a message to him and I (but hardly I and him since I directly follows the preposition).

(5) a. Me and him finished the pizza.
 b. * I and him finished the pizza (I precedes).

In any case, German does not have disjunctive pronouns. The choice of pronoun is determined entirely by the case role of the noun or pronoun before ellipsis:


(7) Sie und ich sind ins Kino gegangen (subject forms).

(8) Sie schickte ihm und mir eine Nachricht (indirect object forms).

12 As easy as 1,2,3 - Relational Grammar

For most of the points that follow, we will have to make reference to Relational Grammar. The concepts involved are quite elementary – if unusual from the standpoint of school grammar.

To begin with, we have to distinguish between three fundamental grammatical relations (terms), which we will number for simplicity: subject = 1, direct object = 2, indirect object = 3. For example:


Naturally, any number of additional relations are possible – these are called oblique relations:
Renate gave a hunting rifle to Ludolf for his birthday [reason] at the Golden Anchor [location] last week [temporal].

Relational Grammar pays special attention to promotions and demotions of arguments. For example, in the passive version of (1):

(3) A hunting rifle [1] was given to Ludolf [3] by Renate [cho]

Original [2] has been promoted to [1] and original [1] has been demoted to [cho]. The relation [cho] is from French *chômeur* ‘an unemployed worker’.

For the moment, this will suffice. We will develop other principles of Relational Grammar as necessary for the analysis.

**13 Freezing**

One notable difference between German and English is that German does not allow a noun phrase that has been demoted to be promoted again – which is unproblematic in English. Consider the following parallel derivations in English and German:

(1) The witness saw it
   
   he drop the gun

(2) The witness saw [that he dropped the gun]

(3) The witness saw him [drop the gun] (Raising to Object, 1 -> 2)

(4) He was seen by the witness [to drop the gun] (Passive 2 -> 1)

In the German derivation, 1 -> 2 through Raising to Object just as in English, but is then "frozen." A subsequent promotion 2 -> 1 is quite impossible so that (7) is ungrammatical.

Note that Freezing is not a general prohibition on more than one movement of a noun phrase. Insofar as demotion is not followed by promotion, multiple movements are allowed:
Es scheint, dass jemand ermordete ihn

Es scheint, dass jemand ihn ermordete. (normal word order)

Es scheint, dass er (von jemandem) ermordet wurde. (Passive 2 –> 1)

Er scheint, (von jemandem) ermordet worden zu sein. (Raising to Subject 1 –> 1)

Here the original object of the subordinate clause undergoes two movements (2 –> 1 –> 1). This is parallel to English It seems that someone murdered him –> It seems that he was murdered (by someone) –> He seems to have been murdered (by someone).

The consequences of this simple difference between English and German are immense. Because English allows an endless cycle of Raising to Object followed by Passive an enormous set of sentences can be generated from a simple base.

Consider the following structure:

Alice believed it


The German Language – A Guide for Inquisitive Students

the following set of sentences:

Alice believed that the Queen thought that the knave stole the tarts.

b. Alice believed that the Queen thought that the tarts were stolen by the knave.

c. Alice believed that the Queen thought the tarts to have been stolen by the knave.

d. Alice believed that the tarts were thought by the Queen to have been stolen by the knave.

e. The tarts were believed by Alice to have been thought by the Queen to have been stolen by the knave.

Clearly, we could follow the same procedure with the knave or the Queen, producing additional variants. Furthermore, we can apply the two operations to a combination of noun phrases, producing “hybrids” like:

Alice believed the Queen to have thought that the tarts were stolen by the knave.

b. Alice believed the Queen to have thought the knave to have stolen the tarts.

c. The Queen was believed by Alice to have thought the tarts to have been stolen by the knave.

e. The tarts were believed by Alice to have been thought by the Queen to have been stolen by the knave.

In addition, each of the embedded sentences in (12) is a direct object of the verb in the clause above so further variants are possible:

Here the object of the bottom-most clause the tarts can be “marched” to the top by successive application of Passive and Raising, yielding
15  a. That the knave stole the tarts was believed by Alice to have been thought by the Queen.
b. That the Queen thought that the knave stole the tarts was believed by Alice.
c. That the Queen thought the knave to have stolen the tarts was believed by Alice.

e tc.

A further option is to apply Extrapolation – an operation that does not change relations, but moves “heavy” elements to the right in order to improve understandability:

16  a. It was believed by Alice that the Queen thought the knave to have stolen the tarts.
b. It was believed by Alice that the Queen thought the tarts to have been stolen by the knave.
c. It was believed by Alice that the tarts were thought by the Queen to have been stolen by the knave.

e tc.

Matthias Kessler (personal communication) has calculated that number of possible variants is \(2^n5^n\), where \(n\) = the number of clauses. Thus, 50 variants are possible with three clauses as in our example. With four clauses, the number of possibilities would increase to 250! German allows Extrapolation, but because of Freezing, most of these possibilities are excluded. Thus, Scrambling, considered above, allows a considerably variation in order of constituents in German, not available to English, but the revenge is severe.

The cyclic interaction between Raising to Object and Passive was noted by George Lakoff in 1967.

14 Passive

We have had occasion to refer to the Passive a number of times above and have perhaps created the impression that German and English behave identically in their treatment of this operation. Despite many apparent parallels, this is not the case. For one thing, English has two passives:


b. Roy [1] was given the Mongolian tiger salve [2] by Siegfried [cho].

In constructions like those above, English has two ways of expressing a [3], either with a preposition as in (1) or without as in (2). In any case, the noun phrase directly following the verb is promoted to [1] whether it be an original [2] or an original [3]. In German, on the other hand, only an initial [2] can be promoted:


The closest equivalent of (2) in German is:

4  (Dem) Roy wurde die mongolische Tigersalbe von (dem) Siegfried gegeben.
Here, the indirect object [3] has simply been topicalized (moved to the front). The grammatical relations remain the same. This often leads to “interference” errors like “Her was given the book for She was given the book.”

In addition, German has a so-called impersonal passive which does not involve advancement to 1 at all:

    ‘Someone danced on the bridge yesterday evening.’

b. Es wurde gestern abend auf der Brücke getanzt (von jemandem [cho]).

Here, the chômeur is almost always omitted. (For the explanation of es, see below.)

Evidently, what is usually termed “passive marking” on the verb (the insertion of the auxiliary werden) simply marks the demotion of the subject [1] to chômeage. With a corresponding promotion of the direct object [2] to subject [1] we have a passive construction. In English, the demotion of the subject to chômeage has to be accompanied by the promotion of an initial [2] or [3]. There is no “impersonal passive.”

15 Es
We considered one of the uses of the ubiquitous pronoun es in our discussion of ellipsis above. There remains a good deal to be said about this “Jack of all trades.”

15.1 Es the door keeper
One remarkable use of es is to guard the beginning of a declarative sentence. Perlmutter (1971) pointed out an interesting typological distinction between languages. What he termed “Type A” languages that require a subject pronoun and “Type B” languages that do not. This is clear from “weather verbs”:

The German Language – A Guide for Inquisitive Students

(1) a. Lat. pluit
     b. Sp llueve
     c. Fr il pleut
     d. Germ. es regnet
     e. Eng. it’s raining

Latin and Spanish have no subject for rain, while French, German and English require a subject. This has nothing to do with fantasies about who causes the rain, but rather with the subject requirement of “Type A” languages. This is also seen in impersonal expressions:

(2) a. Lat. nescesse est
     b. Sp hace falta
     c. Fr il faut
     d. Germ. es ist notwendig
     e. Eng. it is necessary

In both English and German this dummy subject it/es marks the subject position in case a subject clause has been extrapoosed (moved to the end of the sentence):

(3) a. Es ist notwendig, [das Geschirr abzuwaschen].
     b. It is necessary [to do the dishes].

In this case, the German dummy subject is persistent. Moving another constituent to the front triggers Verb-Subject-Inversion:
Gestern war es notwendig, das Geschirr endlich abzuwaschen. ‘Yesterday, it was necessary to finally wash the dishes’.

In the case of the impersonal passives discussed above, the dummy is not persistent, but disappears if some other constituent is available to play door keeper:

(5) a. Es wurde gestern auf der Brücke getanzt.
   b. Gestern wurde auf der Brücke getanzt.
   c. Auf der Brücke wurde gestern getanzt.
   d. * Wurde gestern auf der Brücke getanzt.

Here again, perceptual factors are probably at work. Disappearing-es is required to distinguish the sentences in (5) above from questions. That is, (5d) would normally be interpreted as a question. Starting the sentence with another constituent, *Gestern, auf der Brücke*, avoids this problem. If nothing else is available, es must leap into the breach.

15.2 *Es* with extraposition from the object position
In order to ease sentence processing, German often moves heavy clause objects to the end of the sentence. Once again, an es is left behind to mark the position from which the object was extraposed:

(1) a. Ich weiß es zu schätzen, dass Du meine Katze gehütet hast. ‘I appreciate it that you looked after my cat.’

In (1 b) the object clause follows directly. There is no extraposition and hence no placeholder. In English, verbs of affection (emotion) have the placeholder *it* although the object immediately follows:

(2) a. I hate *it* [that Renate criticizes Ludolf in public].
   b. I love *it* [that you rub my back with Mongolian tiger salve].

German follows suit here with *ich hasse es, dass; ich liebe es, dass*, but unlike English, also retains the *es* with infinitive clauses:

(3) a. Professoren lieben *es*, sich reden zu hören.
   b. Professors love to hear themselves talk.

and also has the placeholder in other cases where Extraposition takes place:

(4) a. Ich sah *es* ein, dass Mutti Santa Claus unter dem Weihnachtsbaum küssen musste. ‘I understood that Mommy had to kiss Santa Claus under the Christmas tree’.
   b. Ich habe *es* einfach erfunden, dass der Osterhase die Eier gelegt hat. ‘I simply invented the story that the Easter Bunny laid the eggs’.
   c. Ich kann *es* mir nicht vorstellen, was passiert ist. ‘I can’t imagine what happened’.

In the case of a genitive object, an optional *dessen* is left behind:
Ich bin mir (dessen) nicht sicher, [ob Mutti Santa Claus unter dem Weihnachtsbaum geküsst hat]. ‘I am not sure whether Mommy kissed Santa Claus under the Xmas tree’.

Ich bin mir (dessen) nicht bewusst, [dass ich Ihren Hund beleidigt habe]. ‘I am not aware that I insulted your dog’.

With a prepositional object, German uses *da(r) + preposition*, where English uses the inflected infinitive:

Ludolf freute sich **darauf**, sonntags Golf zu spielen. ‘Ludolf looked forward to [playing golf on Sundays].

Ludolf freute sich **darauf**, dass Renate seine Mutter endlich kennen lernt. ‘Ludolf looked forward to Renate finally meeting his mother.

With identical subjects in both clauses as in (7), the subject of the dependent clauses is deleted. The verb having no subject to agree with, appears as an infinitive. In English, however, the infinitive is the object of the preposition *to* and appears in the inflected long form.

In English, the infinitive construction is used even if the subject of the dependent clause is different from that of the subordinate clause. The logical subject of the infinitive is a disjunct pronoun as in (8 b), while German has an object clause introduced by **darauf, dass**.

16 Das Ding an sich – the problem with *sich*
The pronoun *sich*, which is completely lacking in English, is usually called “reflexive,” which does, in fact, identify one of its uses:

Ludolf rasiert **sich** jeden morgen. ‘Ludolf shaves himself every morning’.

Here Ludolf is both subject and object of the verb *rasieren* or, seen from the semantic point of view, agent and experiencer of the shaving act. In older German, the form *sich* was only used for the accusative (like *mich, dich*). Later, it was generalized to the dative as well:

Er verspricht **sich** [dat.] zu viel davon. ‘He promises himself too much from it’. = ‘He expects too much from the matter’.

Du versprichtst **Dir** [dat.] zu viel davon. ‘You expect too much from it’.

There are, however, at least four other uses of *sich* in German that do not involve the subject acting on the object. The most obvious is use of *sich* as a reciprocal pronoun:

Ludolf und Renate lieben **sich**. ‘Ludolf and Renate love each other’.

This form is ambiguous and could just as well mean: ‘Ludolf loves Ludolf and Renate loves Renate’.

Perhaps more interesting are the forms where the English speaker feels no need for a reflexive or reciprocal at all. Some of these are ambiguous:

Renate erinnerte Ludolf an sein Versprechen. ‘Renate reminded Ludolf of his promise.’
(5) Ludolf erinnerte sich an Renates Geburtstag. ‘Ludolf reminded himself of Renate’s birthday.

The verb remember in German is analyzable as ‘remind oneself’, it is a minor annoyance that there is no separate verb for remember.

More interesting are the cases where the “reflexive” seems totally unmotivated. Consider:

(6) Die Tür öffnete sich. ‘The door opened’.

Clearly, doors do not open themselves. Syntax is playing a trick on us here. To understand what is actually behind this consider:

(7) a. Renate [agent] opened the door [object].
   b. Renate [agent] öffnete die Tür [object].

In this configuration, Passive can apply yielding:

(8) a. The door [1] was opened by Renate [cho].

There is, however, a parallel construction where the door is a direct object [2] and the subject [1] is simply unspecified:

(9) a. 0 opened the door [2].
   b. 0 öffnete die Tür [2].

The object relations are the same as in (8), but the subject [1] is missing. The promotion 2 – >1 leaves no marker in English, but requires sich in German.


The relict pronoun sich simply indicates that a 2 – > 1 transition has taken place. Usually, this also involves moving the new [1] to the subject position as in (10 b). This is, however, not obligatory. The subject position can remain open – in which case the dummy subject es must be inserted to fulfill the requirement that a declarative sentence cannot begin with a verb:


Here again, the dummy es can be replaced by another constituent:

(12) Gestern öffnete sich die Tür von allein e. ‘Yesterday, the door opened by itself’.

Promotion from 3 – > 1, on the other hand, always involves movement of the new [1] to the front. A dative marker of the original [3] is left behind:


Note that the underlying [3] (mir) is promoted to [1] (ich), but leaves behind a copy of itself, once again mir!

Thus, both English and German mark the demotion [1 – > cho] with so-called passive marking on the verb, but only German leaves behind a pronominal marker at the site of an original [2] or [3] in case of promotion.
Chapter 13: The Origins of German

1 The Indo-European background

The Germanic languages belong to the vast Indo-European language family. At the time of Christ, this family of related languages was spoken in most of Europe, North Africa, Anatolia and the Indian subcontinent (hence, the name “Indo-European”). Here we can only provide a brief overview of the children and grandchildren of the mother tongue we call “Proto-Indo-European” (PIE).

2 The Indo-European homeland

Since the Indo-Europeans left no written historical records, conclusions, or rather suppositions, about their culture and geographic location have to be drawn from a comparison of vocabulary. By comparing the vocabulary we can reliably reconstruct from the various daughter languages, we can try to develop a picture of what their society was like. There are common words for “field,” “plow” and domestic animals (sheep, pigs, cows) so we can conclude that they practiced agriculture. On the basis of kinship terms like “father-in-law,” “brother-in-law,” etc., we can conclude that they had a patriarchal form of society and that the extended family was the norm (women went to live with their husbands’ family).

Since there are common words for “mouse,” “horse” and “dog,” we can conclude that they were familiar with these animals. On the other hand, the absence of common words for “cat,” “donkey” and “elephant” – southern animals – help to place them in the north. This is reinforced by common terms for “snow,” “sea,” and “salmon” (a cold water fish). The eastern border is established by a common word for “beech tree”. Beeches never grew east of a line stretching between East Prussia and the Black Sea. This helps to locate the Indo-European “homeland” on the Baltic coast.

This is, of course, very speculative and counter-arguments can be found for each of the points enumerated above. For example, snow is found on mountain tops even in the south. The common word for “sea” may have referred to any large body of water (cf. German der/die See). In Greek, the common word for “beech tree” refers to an oak. In Tocharian (a distant relative in Chinese Turkestan) the common word for “salmon” simply means ‘fish’.

Nevertheless, taken together the reconstructed common vocabulary speaks strongly for the Baltic hypothesis.
The method employed here is also open to attack on procedural grounds. The lack of a common word for an object or concept is a shaky basis for drawing conclusions. For example, although we can quite reliably reconstruct *(s)neighw-* for "snow", we cannot reconstruct a common root for "rain."

Similarly, *ped-/pod-* for "foot" is found in several branches of the Indo-European family, but there is no common root for "hand." Yet, as Hirt pointed out (IE - Grammar I:1927:76), we would hardly wish to conclude that the Indo-Europeans were familiar with snow, but not rain, with feet, but not hands. In the argument about cats and dogs above, the positive evidence for "dog" is conclusive, the negative evidence against "cat" is not. (Perhaps there was a common word that got lost.) It is, however, supported by lack of other common words for southern animals. To those listed above we can add "lion," "tiger," "camel" and "elephant."

The root for "salmon" *laks-* is found in four branches of the Indo-European family. Three of them, Germanic, Baltic and Slavic, are spoken in geographic regions where the fish is found. The fourth, Tocharian, was spoken in Chinese Turkistan - far from salmon territory. The Tocharian evidence, rather than indicating that *laks-* did not originally mean 'salmon', suggests that the Tocharians began their long trek from the Baltic or North Sea region.

In recent years, there have been attempts to associate the Indo-Europeans with the ancient Kurgan culture located by archeologists near the Black Sea. The cultural comparisons between the Kurgans and Indo-Europeans are surely suggestive, but unfortunately the Kurgans did not leave written records and cultural similarities do not prove linguistic relationships. A comparison of Swedish and Finnish pottery would surely reveal striking similarities, but this does not mean that Swedish and Finnish are related languages. Similarly, a close resemblance between burial customs in Austria and Hungary do not testify to a linguistic relationship between German and Hungarian!

Understandably, but sadly, there is a desire among historical linguists to know more than the historical record yields up. But, not all archeological evidence is to be rejected.

The tentative dating of the Indo-European "Völkerwanderung" as no earlier than 5,500 years ago is based on a common word for 'wheel': IE *kwekulos, (a reduplicating, zero-grade, thematic stem, derived from the root kwel/kwol 'wheel, circle'). This word is found from Tocharian in the east to Old English in the west as well as in Sanskrit and Greek in the middle. Since an independent development of this particular form of the root in several languages is extremely unlikely, we can conclude that this was the/a common word for 'wheel' in Indo-European. Since archeologists have discovered no wheels datable before 3,500 B.C., we can conclude that the members of the Indo-European family went on their separate ways after this common technological development appeared.

The appendix contains a list of Indo-European culture words and a map indicating the migration routes of this rather successful tribe.

3 The spread of the Indo-European languages
Our knowledge of the Indo-European languages is based on comparison of the oldest available records. However, the age of the available records varies considerably. The oldest records are from Hittite in Anatolia ca. 1650 B.C. The most recent are from the Baltic languages (Lithuanian 1515, Latvian 1585). Although we are still comparing apples with apples, a time span of more than three thousand years between the earliest written records of the various members of the Indo-European family does not make things easier. All the more amazing that we can establish patterned sound correspondencies and morphological comparisons between both ends of the spectrum. Here, we can only give a very general overview of the Indo-European languages.

3.1 Indo-Iranian
The languages of the Indian subcontinent including Persia and Afghanistan. The oldest Indic texts, the Rig-Veda, may date from 1500 B.C. Commentaries on the Rig-Veda composed around 400 B.C. were written in Sanskrit – a language spoken by the upper classes in north-western India. Sanskrit became a liturgical language like Latin and is still used in India today. Modern descendants are Hindi, Urdu, Bengali, etc. The oldest Iranian languages are Old Persian dating from ca. 500 - 300 B.C. and Avestan – the language of the religious texts of the Zoroastrian religion. Modern Iranian languages include Farsi (Persian), Kurdish and Dari (spoken in Afghanistan).
3.2 Armenian
Attested since the fifth century, Armenian is considered to be a separate branch of the Indo-European family although its vocabulary was heavily influenced by Persian. Interestingly, Armenian underwent a series of sound shifts similar to those posited for the Germanic languages. This has led to the theory that PIE was actually more like Germanic and Armenian than Sanskrit and Greek.

3.3 Anatolian
The most ancient branch of the Indo-European family and the most recently discovered (at Bogazköy – 150 km east of Ankara – in 1906). The family consists of several languages: Hittite, Hieroglyphic Hittite, Lydian, etc. (all extinct since the beginning of the modern era).

Although the affinities of Anatolian to the Indo-European languages are undisputed, the differences are quite disturbing – especially in light of the great antiquity of the historical records. Some have maintained that Anatolian is a sister rather than a daughter of PIE, others that Anatolian preserves an earlier form of PIE than the one previously reconstructed primarily on the basis of Greek, Latin and Sanskrit.

3.4 Albanian
Earliest records date from the fifteenth century. Indo-European affiliations are clear, but the language has undergone such extensive change and such heavy influence from neighboring languages such as Latin, Greek and the Slavic languages that it now bears little resemblance to its great grandmother.

3.5 Slavic
A large and successful family with records dating back to the ninth century (Old Church Slavonic or Old Bulgarian). The Slavic languages are generally classified into East: Russian, Byelorussian and Ukrainian, West: Polish, Czech, Slovak and Sorbian (in the former DDR) and South: Bulgarian, Macedonian, Serbo-Croatian, Slovene. The Slavic languages are remarkable for their regularity. The workings of sound change are particularly clear here.

3.6 Baltic
On the border between east and west, the Baltic languages (Latvian and Lithuanian) form a transition between the Slavic languages to the east and the Germanic languages to the west. Much useless effort has been expended in arguing about the Balto-Slavic hypothesis – that the Baltic and Slavic languages once constituted a common group. Suffice it to say that the Baltic languages show more resemblances to their neighbors to the east than those to the west. A third Baltic language, Old Prussian, spoken east of Berlin, became extinct in the seventeenth century.

The Baltic languages are notable for their extreme archaism. The inflectional system of Lithuanian is comparable to that of Sanskrit although the earliest attestation of the two languages are separated by some two-thousand years.

It is tempting to take the archaic structure of the Baltic languages as evidence for the location of the Indo-European homeland on the shores of the Baltic Sea – the folks who stayed at home remained the most conservative.

3.7 Celtic
The Celts once occupied most of central Europe from northern Italy to northern Spain. Celtic was spoken as far east as the Black Sea and as far west as Ireland. Thus, it is puzzling that only minimal remains of Celtic survive. Continental Celtic is long since extinct.

Celtic is best preserved in Wales, Irish is dying despite the best efforts of the Irish government to preserve it as is Scots Gaelic. Breton (not continental Celtic, but an importation from Cornwall) maintains a brave, but endangered existence. The Celtic languages underwent such drastic changes that it was very difficult to establish their basic Indo-European character.

3.8 Italic
Arguably the most successful Indo-European language of all – Latin is spoken in most of western Europe and the entire American continent south of Texas. Even in the south west of the USA, Latin is at least co-equal with English. Of course, we call Latin French, Spanish, Italian, Catalan, Portuguese, etc. But, no matter, it is Latin and has been spoken continuously over two thousand years. Bravo!

The Classical Latin of Caesar and Cicero still survives in our schools despite dismal teaching methods and Church Latin – a
descendent of the educated speech of the late Roman Empire – is still in use as a liturgical language.

Other Italic languages such as Oscan, Umbrian and Faliscan were absorbed by Latin before the beginning of the common era.

3.9 Greek
Thanks to the efforts of Alexander the Great (356 - 323 B.C.) Greek once occupied the place occupied by English today – World Language. It was the language of administration from north Africa to the Black Sea. The New Testament was composed in this common form of Greek (the koiné) based on the speech of Athens. In Greece, the Balkans and western Anatolia, Greek survived as the regional World Language until the fall of Constantinople in 1453.

Earlier Greek is preserved in graffiti dating back to ca. 800 B.C. in a variety of dialects. The Greeks are credited with the invention of the alphabet. The earliest records (Mycanéan Greek) date back to ca. 1450 B.C. in Crete and on the Greek mainland and are recorded in an awkward writing system that leaves many questions open.

3.10 Tocharian
Tocharian, which is preserved in two dialects (Tocharian A and Tocharian B) in Chinese Turkestan (Xinjiang Province), may be termed the “bad boy” of the Indo-European family. The Tocharian texts, recovered at the beginning of the last century date from the sixth to the eighth century and are written in an Indian script. They consist mostly of translations of Buddhist religious works and reveal little about the Tocharians themselves. The language appears to have stronger affinities to the western group of Indo-European languages (see below) than to its nearest neighbors. This has given rise to considerable speculation – but is perhaps best explained by an unusual wanderlust. Wall paintings show the Tocharians with red hair and blue eyes.

3.11 Germanic
The original homeland of the Germanic languages appears to be southern Sweden. From there, Germanic moved slowly south, reaching its present southward extent by about 500 A.D. The Germanic languages are generally divided into three groups: west (English, Frisian, Dutch, Low German, High German, Yiddish), north (Icelandic, Faroese, Danish, Norwegian, Swedish) and east (Ostro-Gothic, Visi-Gothic, Vandalic(?)).

The speakers of the eastern languages broke off at an early date and made their way to the south east, some of them eventually reaching the shores of the Black Sea. The east Germanic languages are now extinct.

We will now consider the Germanic languages in more detail below.
Chapter 14: The Germanic Languages

1 Germanic and Indo-European
Traditionally, the Indo-European languages have been divided into a western and an eastern branch on the basis of the treatment of the palatal stops (like the $k$ in NHG Kinn). In the eastern satem-languages (from the Avestan word for one-hundred), these sounds developed into “sibilants,” hissing sounds, e.g., Sanskrit सातम्, Russian сто, Latvian simt. In the western, centum-languages, $k$ remained. Thus, we have Latin centum, Greek θε-κάτων, Old Irish cét. English hund-red belongs here as well since ($k > h$) in Germanic.

1.1 The first sound shift
The most remarkable feature of the Germanic languages is what Jacob Grimm termed “die erste Lautverschiebung” (mentioned above in our discussion of the comparative method). Schematically: the voiceless stops became voiceless fricatives ($p, t, k > f, ð, χ/h$). The voiced stops become voiceless ($b, d, g > p, t, k$). And a mysterious group of sounds that show up as aspirated voiced stops in the Indian languages become voiced fricatives (later, mostly, stops). Thus, ($bh, dh, gh > b, d, g$). The whole development seems circular, a fact that particularly impressed Grimm. Here are some examples:

<table>
<thead>
<tr>
<th>Latin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>piscis</td>
<td>fish</td>
</tr>
<tr>
<td>tres</td>
<td>three</td>
</tr>
<tr>
<td>cornu</td>
<td>horn</td>
</tr>
</tbody>
</table>
The German Language – A Guide for Inquisitive Students

It is worth noting in passing that “Grimm’s Law” did not operate after a fricative (original s or a fricative it created, working from left to right). Consider Latin *spuere*, NHG *speihen* ‘vomit’, and Latin *octo*, NHG *acht*, where the k is shifted, but the following t remains. The workings of “Verner’s Law” (turning a voiceless fricative into a voiced fricative) have been explained above (Chapter 5).

### 1.1 Chronology of the First (Germanic) Sound Shift

Having determined that the First Sound Shift separated Germanic from the other Indo-European languages, it seems logical to inquire when this change took place. As with so many other questions of historical linguistics – there is no clear answer because the evidence is insufficient.

A report by the Greek historian Herodotus is, however, suggestive. He tells us that kännabis ‘hemp’ was imported into Greece in the fifth century before Christ. Both the plant (it’s useful for making ropes) and the name for it were unknown before that time. The English word *hemp* shows that both the k and the p were shifted (m by assimilation of np).

Since the word kännabis participated in the First Sound Shift, it must have been borrowed into Germanic (along with the rope) before the sound shift took place. So we can place the beginning of the sound shift after 500 B.C. Since extensive contacts with the Romans begin around 100 B.C. and few of the loan words from Latin in the Germanic languages show the effects of the sound shift (cf. the remarks on Finnish above), we can conclude that the First Sound Shift was over by then. Hence, we can set a tentative date between 500 B.C. and 100 B.C.

As for the relative chronology, p, t, k must have shifted to f, b, χ before b, d, g shifted to p, t, k. Otherwise the two groups of stops would have fallen together and become voiceless fricatives. But, the problem of the voiced aspirates bh, dh, gh remains. Were they really voiced aspirates?

The exact nature of the “voiced aspirates” has been a matter of hot debate for more than a century. The earliest view was that these were voiced stops accompanied by a puff of breath (aspiration). This is the case in Sanskrit (as indicated above) and the early Indo-Europeanists’ great awe of the then oldest known member of the family influenced the analysis.

But, voiced aspirates are exceedingly rare in the world’s languages. Certainly, they are found no where else in the Indo-European family. None of the various alternatives that have been suggested, has gained general acceptance. Thus, it is probably best to retain bh, dh, gh, as convenient symbols for sounds whose exact nature is not known.

### 1.2 Chronology of the Second (High German) Sound Shift

While we are on the subject of chronology, it is worth considering when the Second (High German) sound shift occurred. This development (q.v. Chapter 4) separated High German from English and “Mother.” Here again the difficulties in reaching a conclusion are considerable.

Note that there are a large number of Latin loan words that have made the shift:
None of these, however, helps with the problem of dating since we do not know when they were borrowed. A unique opportunity is provided by Attila, the renowned leader of the Huns, who ruled from 434 until his death in 453. His name also made the shift: MHG Etzel. If the shift had been completed before his time, we would expect the retention of *tt* which was reintroduced later as in Bitte (tt < dd, cf. Mod. Eng. *bid*). This concept may be confusing, but the basic idea should be clear: If a word is borrowed before a sound shift takes place, then it will participate in that shift (see the Latin examples above). With proper names, we have the opportunity to date the borrowing – there is no telling when Germanic borrowed *strada* or *cuquina*, but Attila can be precisely dated from historical records. Hence, although the details are far from clear, it seems reasonable to date the High German Sound Shift some time after 450. Latin documents from the seventh century record personal and place names from the south that have been shifted, e.g., *Ziaber*na *Zabern* (Latin *ad tavernas*) and, of course, *Zürich* < *Turicum*. Thus, we can date the change approximately to the period between 450 and 650.

The High German Sound Shift started in the south (opinions are divided as to a locus in Switzerland or northern Italy) and spread northward until it ran out of steam along the Benrath line, which ran from Cologne to Berlin and on into East Prussia (see map in the Appendix).

### 1.3 Development of the vowels

The development of the vowels between Indo-European and Germanic is somewhat complex so we will limit ourselves to an exposition of some of the most prominent features here. Details are, of course, available from the “handbooks,” some of which are listed in the Appendix: Someday Reading.

#### 1.3.1 Short vowels

Whatever the ultimate Proto-Indo-European vowels system looked like (a matter of some controversy), it seems likely that Germanic inherited a system of five vowels – short and long.

The inherited short vowel system:

<table>
<thead>
<tr>
<th>Latin</th>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>strada</td>
<td>street</td>
<td>Straße</td>
</tr>
<tr>
<td>planta</td>
<td>plant</td>
<td>Pflanze</td>
</tr>
<tr>
<td>cuquina</td>
<td>kitchen</td>
<td>Küche</td>
</tr>
<tr>
<td>catinus</td>
<td>kettle</td>
<td>Kessel</td>
</tr>
<tr>
<td>pondo</td>
<td>pound</td>
<td>Pfund</td>
</tr>
</tbody>
</table>

The vowel shifts included an unconditional change *o* > *a*, followed by a number of conditional changes that can best be subsumed into the category “vowel harmony” (q.v. under Types of Sound Change). The vowel *a* (mostly from *o*) lowered *i, u* to *e, o*. On the other hand, *e, o,* were raised to *i, u,* unless a following *a* prevented the change. An *i* resulting from this development much later caused *i*-umlaut.

These developments are reflected in the Germanic development of PIE *dhwer* ‘opening, door’. From the θ-grade *dhur*- with the suffix -*ah* (cf. Gr. *thrā*) we get Ger. *Tor* ‘gate’, with the *i*-stem suffix (cf. Lat. *foris*) the *u* of the stem is retained and then unumlauted giving modern *Tür*.

The following table with notes summarizes the developments:

<table>
<thead>
<tr>
<th>Unconditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vowel harmony</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>3a.</td>
</tr>
</tbody>
</table>
Notes:

1. The change o > a is unconditional, e.g., PIE *ghostis > Goth. gasts despite the -is of the ending.

2. Since o disappeared as a result of (1.), there would have been no Germanic o at all, had a new one not been created by lowering of u before a!

3. The vowel e > i unless a following a prevents the shift. Similarly, an original / and u are lowered by a following a, e.g., Lat. vir ‘man’ < PIE *wiros becomes PG *wer < *wiraz (as in Werwolf). Lowering is blocked before nC, thus helfan, geholfan, but findan, gefundan.

   Raising e> i occurs both before i and u of the following syllable. This accounts for interesting pairs such as Berg ‘mountain’ ~ Gebirge (OHG gebirgi) ‘mountain range’, recht ‘law’ ~ Gericht (OHG gerichti) ‘court’, Herde (OHG herta) ‘herd’ ~ Hirte (OHG hirti) ‘herdsman’. This also accounts for the vowel mutation in the singular of the strong verbs, e.g., geben ~ gibst, gibt (OHG geban, gibis, gibit) ‘give’.

   Examples of raising before u are sieben (OHG sibun) cf. Lat. septem ‘seven’, Vieh (OHG fihu) cf. Lat. pecu ‘cattle’, gibu ‘I give’. See also the discussion of the verb endings.

4. Later, i/j-umlaut causes the mutation of u > ü, a > ä. Thus, PG *guldam > OHG gold ‘gold’, but, PG *guldin > Mod. Eng. gilded (with unrounding), lang ~ länger (OHG lang ~ lengiro).

5. The mutation of o as in das Dorf ~ die Dörfer is secondary since o before i/j was not possible. Originally, dorf < PG *thurpam had the nom. pl. dorf (cf. discussion of wort under the s-stems). The a of the ending lowered the stem vowel. Later dorf went over to the s-stems (lamb ~ lembir) and o > ö because of the i of the plural endings. Another, later source is the lowering of u > o before a nasal (MHG künne > NHG können, OHG gespunnen > NHG gesponnen.).

   To be sure, the neat patterns outlined above are often perturbed by the forces of analogy. But, there are also real mysteries as yet unresolved. As indicated in note 3 above, the consonant cluster nC blocks lowering, but there is nothing in the environment that can explain why the verbs of the i-ablaut series should resist lowering, cf. the past. part. gebissen < OHG gibizzan, but those of the u-ablaut series should behave normally, cf. geflogen < OHG giflogan.

   Other analyses of the data are, of course, possible. One man’s raising under certain circumstances is another man’s lowering under other circumstances. The view presented here seems to be the simplest one consistent with the facts. For a more complete discussion see Prokosch (1938:100-103).

1.3.2 Long vowels

The long vowels ı, ü were relatively rare and remained unchanged, ä and ö fell together into ő (just the opposite of the merger of the short vowels). Subsequent developments demand that we posit two ě-vowels (ě and ě), presumably /eː/ and /eː/, which had different fates. The latter is of obscure origin and shows up principally in Latin loan words – although a few native words are represented (e.g., OHG hiar ‘here’). The following table provides a few details:
1.3.3 Diphthongs

Since Proto-Indo-European theoretically allowed the combination of the five vowels (long and short) with the off-glides /j/ and /w/, a great number of diphthongs were possible. Most of these were not relevant for Germanic in any case since no distinction between long and short diphthongs was made. The most interesting cases are found in the first two groups of the strong verbs considered above. In Group I, for example, we find the development ei > ē, with smoothing or assimilation of the two parts of the diphthong, which amounts to the same thing. In the past, we see another general characteristic of the development – each part of the diphthong develops as did the individual vowel: o > a, oi > ai. In the latter case, assimilation sets in with ai > ei (pronounced /ɛi/).

<table>
<thead>
<tr>
<th>PIE</th>
<th>OHG</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>ē</td>
<td>ē</td>
<td>Lat. swēnus, OHG swēn ‘swine’</td>
</tr>
<tr>
<td>ūu</td>
<td>ūu</td>
<td>Lat. sūs ‘pig’, OHG sūu ‘sow’</td>
</tr>
<tr>
<td>ā</td>
<td>ō (uo)</td>
<td>Lat. māter, OHG müuter</td>
</tr>
<tr>
<td>ō</td>
<td>ō (uo)</td>
<td>Lat. fīō-, OHG bluomo ‘flower’</td>
</tr>
<tr>
<td>ē1</td>
<td>ā</td>
<td>Lat. ēdimus ‘we ate’ OHG āzum</td>
</tr>
<tr>
<td>ē2</td>
<td>ia</td>
<td>Lat. rēgula OHG ziagal ‘tile’</td>
</tr>
</tbody>
</table>

For more on ē², see the Appendix on “Mysterious-h.”

<table>
<thead>
<tr>
<th>OHG</th>
<th>steigen</th>
<th>stiegen</th>
<th>gestiegen</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHG</td>
<td>steigen</td>
<td>-----</td>
<td>gestiegen</td>
</tr>
</tbody>
</table>

Considering the other combinations found in the verb system, e.g., e/o + u, e/o + l, r, e/o + m, n (C), it seems legitimate to question the special status of the “diphthongs.” Perhaps, they should simply be considered as special developments of a vowel plus a following glide or consonant.

Two further developments are, however, worth noting: in PG au > OHG ō before ch, and “dentals” (p, t, d, s, n). In Old English au > ea (mutual assimilation of vowel and glide). This gives us pairs like: tot ~ dead, rot ~ red, los~ less, Ohr ~ ear (cf. Goth. auso). The combination eu as in Group II of the strong verbs develops to iu if i follows and eo if a follows in accordance with the rule of vowel harmony. The subsequent development is: eo > ie > i: as in fliegen < fleogan. (Notice that the modern spelling reflects the earlier diphthong.) Where i follows, the development is iu > u > eu thus ̈iud-iska (from ̈peod~ ̈iud- ‘people’) > deutsch.
Chapter 15: The Earliest Writings

1 Runic inscriptions
The earliest examples of Germanic writing that have come down to us are the so-called runic inscriptions – mostly from north Germanic territory. These inscriptions used a form of writing probably adapted from a north Italian alphabet. The oldest inscriptions are dated ca. 250 A.D. and the oldest complete sentence was probably written around 400 A.D. It was found carved in stone at Einang, Norway:

\[ \text{ðagaR þaR runo faih} \text{ðo 'Dag fashioned these runes'}. \]

(The rune transcribed here as \( R \) was derived from Germanic \( z \), the exact pronunciation is unknown, but, in any case, not the same as the \( r \) in runo.)

Not a very inspirational message and Dag himself would probably be astounded at the scholarly resonance his communication has excited. Other inscriptions consist of memorials to the dead, magic charms and trademarks. The most famous of the latter was uncovered by a Danish peasant plowing a field. It is inscribed on a golden horn and dated to the fifth century:

\[ \text{ek HlewagastiR Holtijar horna tawido 'I, Hlewagast the Holt made this horn'}. \]

The name of the goldsmith is particularly interesting. Notice that \( gastiR < *gasti \) ‘host’ correlates nicely with Latin \( hostis \). Similarly, \( hlewa- \) corresponds to Greek \( klewos \) ‘fame’, Mod. Eng. ‘loud’. (The famous are prone to boasting.) Hence, our artisan had an old Indo-European name: Host of Fame. Holtijar is a clan name ‘the Holt’ or a patronymic ‘son of Holt’ or a place name ‘of the forest’. The origin of the word is clear, cf. Ger. Holz.

2 The Gothic Bible
The oldest literary source for the Germanic languages is the Gothic Bible translation of Bishop Wulfila, ca. 350 A.D. Wulfila devised his own alphabet for his translation, relying mostly on Greek with some additions from the Latin and runic alphabets. The translation is actually a word-for-word version of the Greek original, possibly
intended to ease understanding of the text for priests rather than to preach the Gospel to the common folk. About two-thirds of the New Testament, a fragment of the Book of Nehemiah, and part of a commentary on the Gospel According to John have come down to us.

The Gothic Bible is of inestimable value to us thanks to its great antiquity – its origins are about four-hundred years older than the earliest literary sources of the other Germanic languages although the manuscripts that have survived are about two hundred years younger and do not exactly represent the language of the original. As a sample, the beginning of the Lord's Prayer:

Atta unsar, þu in himinam, weihnai namo þein. Qimai þiudinassus þeins, swe in himina jah ana ǫrþai.

(Atta ‘Papa’, remember Attila ‘the little father’; Atta unsar Latin and Greek word order pater noster; weihnai ‘blessed’ cf. Weih-nachtien; þiudinassus, ‘kingdom’ from þeod- ‘people’, seen in Deutsch.)

3 Old High German

In the Middle Ages, Latin was the literary language – if you needed to put something down on paper (parchment), you wrote it in Latin. The writing of German, aside from earlier, occasional runic inscriptions, was occasioned by the introduction of Christianity.

The Christian texts, Gospels, Psalms, theological texts, prayers, oaths, etc., were transmitted in Latin, but needed to be understood. An oath sworn in an incomprehensible language is not worth much. Hence, writing in German began with glosses, vocabularies and interlinear texts. Glosses are German translations of difficult words in Latin manuscripts, written between the lines or in the margins. Vocabularies are word lists – Latin and German. The whole procedure is very much like the practice of modern students who note difficult vocabulary on the handout and keep a “Vokabelheft” for future reference. Later, these were followed by interlinear – word for word translations – of important Latin documents. By the middle of the ninth century “real” literature had developed in, e.g., Otfrid’s Evangeliencbuch, a poetic rendition of the Gospels.

A particularly interesting genre was the traveler’s phrase book – a medieval “Sprachführer.” Two have been preserved, one in Kassel, although the language is clearly Bavarian, and another in Paris, where the language has been influenced by a French copyist, who was not particularly good in German or Latin. Here are some excerpts:

<table>
<thead>
<tr>
<th>Phrases for Travelers from the Kassel Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Latin</strong></td>
</tr>
<tr>
<td>indica mihi quomodo nomen habit homo iste.</td>
</tr>
<tr>
<td>unde est tu?</td>
</tr>
<tr>
<td>quid quisisitis?</td>
</tr>
<tr>
<td>quesivimus quod nobis necesse fuit.</td>
</tr>
<tr>
<td>quid fuit necessitas?</td>
</tr>
<tr>
<td>necessitas est nobis tua gratia habeere.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phrases for Travelers from the Paris Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Latin</strong></td>
</tr>
<tr>
<td>da mihi meum equum</td>
</tr>
<tr>
<td>ubi est tua femina?</td>
</tr>
<tr>
<td>tu iacuisti ad feminam in tuo lecto.</td>
</tr>
<tr>
<td>canis culum in tuo naso.</td>
</tr>
</tbody>
</table>

Particularly the Paris manuscript suggests that the monastic life was not as boring as one might imagine. The quality of the German leaves much to be desired, but is not far removed from a modern French accent, e.g., the consonant h is lacking: undes for hundes, in guar for war ‘where’, initial w became gw in French (cf. French guerre for English war). In addition, the manuscript, dated from the tenth century, provides us with one of the oldest recorded German obscenities.
A good point of comparison between OHG and the modern language is provided by the Lord’s Prayer, which we cite in the East Franconian version closest to the modern literary language:

*Fater unser, thu thar bist in himile, si giheilagot thin namo, queme thin rihii, si thin willo, so her in himle ist, so si her in erdu, unsar brow tagaihiaz gib uns hiutu, inti furlaz uns unsara sculdi, so wir furlazemes unsaren sculdigon, inti ni gileitest unsih in costunga uzouh arlosi unsih fon ubile.*

A few words of interpretation may be necessary:

1. *queme* = *komme*.
2. *her* = *er*, cf. English *he*
3. *costunga* ‘temptation’, cf. German *kosten*

Once again, the strange word order is due to an attempt to imitate the Latin original. *Fater unser*, for example, is due to the Latin original *pater nostrum*. Considering that these words were written some 1150 years ago, it is rather amazing how accessible they are to the modern reader.

### Chapter 16: Middle High German – New High German

1. **The Middle High German period**
The Middle High German period begins around 1050 and is marked by the weakening of vowels in the inflectional syllables and the general appearance of umlaut. The end of the MHG period is a matter of opinion or perhaps taste. A convenient point in time is ca. 1350.

2. **The weakening of vowels in inflectional syllables**
The weakening of vowels in inflectional syllables has already been mentioned above in connection with the noun declension. A comparison of the conjugation of the verb *geben* may serve as a further example. The full vowels of the inflectional syllables have been reduced to “schwa” /ə/:

<table>
<thead>
<tr>
<th>OHG</th>
<th>MHG</th>
</tr>
</thead>
<tbody>
<tr>
<td>ih gibu</td>
<td>ich gib</td>
</tr>
<tr>
<td>du gibis(t)</td>
<td>du gibest</td>
</tr>
<tr>
<td>er gibit</td>
<td>er gibet</td>
</tr>
<tr>
<td>wir gebemès (-ēm, -ēn)</td>
<td>wir geben</td>
</tr>
<tr>
<td>ir gebet</td>
<td>ir gebet</td>
</tr>
<tr>
<td>sia gebant</td>
<td>sie gebent</td>
</tr>
</tbody>
</table>

In a number of environments, the schwa itself disappeared, as in two-syllable words, e.g., *demo > deme > dem*. The reduction of the endings continued into NHG, cf. *du gibst, er gibt*. Interestingly, the derivational suffixes like -in, -ling, nis, cf. *käneginne, vingerline* ‘ring’, *vinsternisse* ‘darkness’ were not reduced. These suffixes probably had a secondary accent.
3  The general appearance of umlaut

As explained above in the discussion of sound change, umlaut is conditioned sound change, referring to the assimilation of a vowel to the position of a vowel following of the following syllable. For example, OHG gast ~ gesti, where the i of the plural ending has attracted the stem vowel and caused it to raise and move forward.

All of the Germanic languages have this i/j-umlaut with the exception of Gothic and, as we will see in a moment, even in Gothic, it cannot be excluded. Thus, it would be tempting to conclude that i/j-umlaut was a common Germanic sound change (or at least a common north-west Germanic sound change) to be dated very early. The evidence is, however, difficult to interpret. In Gothic, there is no evidence of umlaut at all, and in OHG we only observe the change of a>e, as in our example above. And even here certain consonant groups apparently blocked umlaut, e.g., macht ~ machti, where cht appears to have stopped umlaut from occurring. The change from a>e in OHG was thus referred to as “primary umlaut” and the later forms which show up in MHG (mächte < machti, löcher < lohhir, türe < turi) were called “secondary umlaut” and were assumed to have occurred later. The problem with this theory is that the umlaut spellings first appear (aside from sporadic attempts in OHG) when the conditioning element has disappeared through weakening of the vowels of the ending. How can a change first take place after the causative element has disappeared?

The American linguist W.F Twaddell provided an insightful answer to this paradox in a short article published in 1938. Twaddell pointed out that there is no necessity to distinguish the umlauted vowels from those without umlaut as long as the context for umlaut is clear.

To see how this works, consider the two sounds [ç] and [χ] as in ich and ach. Both sounds are spelled <ch> because the exact pronunciation is clear from the environment – <ch> is pronounced [χ] after back vowels and [ç] elsewhere. By the same token, OHG lohhir was pronounced [ʨʰiɾ] because of the i of the ending. As long as the i was present, it was sufficient to indicate the umlauted pronunciation of the o of the stem. The same principle could apply to Gothic, which maintained the full vowels of the endings.

When all the final vowels of the endings in OHG were reduced to /a/, the identifying environment disappeared and it became necessary to indicate the umlaut of the stem vowel with a new symbol. The general practice was to write a small <e> over the umlauted vowel. The two dots – which we now call “an umlaut” – are derived from this letter.

As for “primary umlaut,” we can be sure that the <e> of gesti was not identical to the original <e> of geban. (Reason: these vowels were never rhymed by the MHG poets.) The best guess is that the vowel of gesti was close /e/ while the vowel of geban was open /ɛ/ — the two similar enough to be represented by <æ>. On the other hand, the vowel of mähti was probably wide like the vowel in English cat. The problem is clear — four different vowels and only two Latin letters to represent them. The solution: two of them were assigned to <æ>, the other two to <a>.

But, when did i/j-umlaut take place? Well, for the reasons laid out above, no one knows for sure. But, sometimes it is more important to know that you don’t know and why you can’t know than to know the answer itself.

4  Es ist mir Wurscht – two s-sounds

Just as writers in the Middle High German period distinguished between two f-sounds (written <f> and <v>), they distinguished between two s-sounds as well. The sound written <s> was “inherited-s” and corresponds to English s, sehen ~ see, fist ~ Faust, etc. The other s-sound (written <z>) is High-German-s, derived from t (cf. foot ~ vouoz, water ~ wasser, etc.).

There is good reason to believe (as we shall see in a moment) that <s> indicated an s-sound pronounced with a raised tongue tip: [ʃ] and <z> a “normal”-s. The evolution of these sounds is a bit complex. Inherited-s fell together with /ʃ/ when followed by consonant in initial position, e.g. Sprache, Stück, schnell, schmal, schrecklich. In other positions, however, it fell together with “normal,” High-German-s, e.g., Post, Faust, basteln, lästig, lispeln, etc. This is the case for standard German. The dialects often developed differently. In Hamburg, for example, the two s-sounds fell together at the beginning of the word.
as well. This is the famous *Spitzen-Stein* pronunciation, which was once regarded elegant, but is now considered affected.

In other dialects, \( /s/ \) fell together with \( /ʃ/ \) in non-initial position as well. This pronunciation is considered vulgar or provincial. Hence, the pronunciation of *Wurst* in the vulgarism: *Es ist mir Wurscht* ‘I don’t give a damn’.

Before a vowel or between vowels, \( /s/ \) fell together with \( /ʃ/ \). In the south, it remained unvoiced, but in the north it voiced, cf. the northern and southern pronunciation of words like *sagen, sehen, Besen*. The standard followed the north, leaving the odd state of affairs that the only contrast between \( /s/ \) and \( /ʃ/ \) is between vowels where the first vowel is long. Compare *Fliesen* ‘tiles’ and *fließen* ‘flow’. See if you can figure out why before reading the fine print below.

Because of the final devoicing rule (see Chapter on pronunciation), there can be no contrast in final position – all obstruents are voiceless.

Similarly, in initial position only inherited-\( s \) occurs. (Here, \( t > ts \), cf. *ten ~ zehn*.) So, there is no possibility of contrast here either.

High-German-\( s \) (< \( t \)) is always doubled, cf. *water ~ Wasser*. Hence, the preceding syllable is closed and vowel lengthening cannot take place. The double fricative was later shortened, but not voiced. On the otherhand, *already existing* long vowels and diphthongs were not shortened, e.g. OHG *reižan > NHG reißan* ‘tear’; OHG *hwæzan > NHG weissen* ‘whiten’.

Inherited-\( s \) was a simple sound and allowed vowel lengthening as well as preserving original long vowels, e.g., OHG *wesan > NHG Wesen* ‘being’, OHG *wæsan > NHG weisen* ‘show, point’. Thus, both long and short vowels are possible before High-German-\( s \).

In effect, “history” setup a situation in which long vowels before inherited-\( s \) (voiced) can contrast with short vowels before High-German-\( s \) (unvoiced).

<table>
<thead>
<tr>
<th>Permissible Vowel Length</th>
<th>Inherited-( s ) long [z]</th>
<th>High-German-( s ) short/long [s]</th>
</tr>
</thead>
<tbody>
<tr>
<td>lasen</td>
<td>lassen</td>
<td></td>
</tr>
<tr>
<td>Wesen</td>
<td>Wasser</td>
<td></td>
</tr>
<tr>
<td>weisen</td>
<td>weissen</td>
<td></td>
</tr>
<tr>
<td>reisen</td>
<td>reißen</td>
<td></td>
</tr>
<tr>
<td>Fliesen</td>
<td>fließen</td>
<td></td>
</tr>
<tr>
<td>Hasen ‘hares’</td>
<td>hassan ‘hate’</td>
<td></td>
</tr>
</tbody>
</table>

For those of you who have taken the time to work through the fine print, the “strange case of /s/” noted under the description of the German sound system in Chapter 2 should now make some sense. The curious fact that \( /s/ \) and \( /ʃ/ \) only contrast between two vowels – the first of which is long – can now be explained as the result of historical development rather than just an anomaly in the sound system of modern German. The reason we believe that inherited-\( s \) had the value [z] is that it developed into [s] or [ʃ]. Acoustically, it stands between these two values.

5 The MHG “Dichtersprache”

Students of the science of language are not interested in literature – at least not professionally. As the American linguist Leonard Bloomfield put it: literature “consists of beautiful or otherwise notable utterances.” The linguist is, however, interested in “the language of all persons alike” (*Language*, 1933:22).

The linguist is, however, limited by the literary material that has survived the ravages of time and is available for analysis. In the Old High German period, written sources reflect the limited interests of
those who could write. They were mostly churchmen and the
documents they produced were mostly religious in content.

The Middle High German period is accompanied by an
impressive production of world-class literature. To mention just a few
works: Das Nibelungenlied, the works of Hartmann von Aue (Iwein,
Der Arme Heinrich, etc.), Gottfried von Strassburg’s Tristan und
Isolde, Wolfram von Eschenbach’s Parsifal. Many of these works are
known today principally through the operas of Richard Wagner, which

Another notable accomplishment of the writers of this period was
the creation of a common “Dichtersprache” (poetic language) which
flourished from approximately 1190 - 1240. The chief characteristic
of this language was the avoidance of dialect forms that were not
acceptable in neighboring dialects. For example, Hartmann (a
Swabian) avoids rhyming kam with nam because in neighboring Bavaria the forms were kom and nam. This is the beginning of a long
tradition, respected by Goethe and Schiller, and continuing into the
nineteenth century.

Another problem that deserves mentioning in passing is that of the
textual tradition. Texts from the OHG period are mostly preserved in
one or two versions. They are printed “as is” in modern editions with
footnotes indicating variations if any.

With the advent of “real literature” in the MHG period, there is a
veritable explosion in the number of manuscripts produced. The
Nibelungenlied, for example, is represented by 34 manuscripts
surviving from the early period, testifying to its popularity.
Furthermore, these manuscripts do not agree in their text, dialect
characteristics or orthographic conventions.

The result is a mess that modern editors have tried to resolve. In
some cases, for example, Hartmann’s Armer Heinrich, the surviving
manuscripts were written more than a hundred years after the author’s
death and after numerous changes had occurred in the language. In
such cases, the helpful editors have translated Early New High German
back into classical Middle High German for the pleasure and
edification of the reader! Needless to say, such editions are of doubtful
usefulness for linguistic investigation.

6 A look at the vowels
The major changes between Middle High German and New High
German affected the vowels, thus it will be helpful to consider these
changes before looking at a Middle High German text. (We are
comparing “classical” Middle High German to “standard” New High
German).

6.1 Vowel lengthening
Vowels followed by a voiced consonant in an open syllable were
generally lengthened, e.g., MHG trägen > NHG tragen. The spelling
was not changed and thus a vowel followed by a single voiced
consonant plus a vowel is to be pronounced long. The spelling
convention is a result of sound change.

In some cases, the vowel that opened the syllable subsequently
disappeared – but only after vowel lengthening had occurred, e.g.,

MHG jagter > NHG Jägd.

The vowels in single syllable words were lengthened by analogy
to the two-syllable inflected forms. Thus, lengthening in MHG wege,
weges, wegen was regular. The lengthening of the nom. and acc. sing.
wege (modern Weg) was due to analogy.

Similarly, h dropped out between vowels with compensatory
lengthening of the first vowel: MHG nahe /nahə/ > NHG nahe /nɑː\r
MHG sehen /ʃeːn/ > NHG sehen /ʃeːn/. Thus, <h> also became a
sign of lengthening of the previous vowel.

Single syllable words ending in a sonorant (r, l, m, n) also
underwent vowel lengthening, the “Dehnungs-h” of the previous
development served as a convenient sign of the long vowel: MHG in,
in, ir > NHG ihn, ihn, ihr. For the spelling of the vowel in viel < vil
see below.

Before t and m, lengthening did not take place and the consonant
was doubled in the spelling to indicate the short vowel: MHG buter,
komen = NHG Butter, kommen. Here again, the origin of the spelling
convention is sound change. In closed syllables (those ending in a
consonant) like hit-te, vowels remained or became short (see below
under vowel shortening). The original double consonants as in bitte
also simplified to single consonants (modern /bita/). Thus, doubling
the consonant became a sign indicating a preceding short vowel.
6.2 Vowel shortening
As indicated above, long vowels in closed syllables were shortened. This can be regarded as a complementary development to vowel lengthening — a kind of reorganization of the short and long vowels:

PG *daŋkti > OHG, MHG dância > NHG dâchter; MHG jâmmer > NHG Jämmer. Vowel shortening did not, however, occur in all environments. See above under the discussion of s-sounds.

6.3 Breaking (diphthongization)
The MHG high tense vowels ĭ, ü, broke (diphthongized) to /ei/ and /ao/. The broken ĭ fell together with MHG /ei/ as in stein and developed further to /ai/ in the standard language. This explains the modern spelling. Since <ei> had become /ai/, the spelling could be applied equally well for the product of breaking from the long vowel. Thus, MHG mîn stein > NHG mein Stein. In Bavarian the difference is preserved. The breaking product is as in standard German, the old diphthong is rounded to /êː/: mai stoà.

6.4 Smoothing (monophthongization)
The MHG diphthongs <ie>, <uo>, <üe> as in bieten, bruoder, bruêder were smoothed to long vowels in the standard language: bieten, Brueder, Brüder. The spelling <ie> for /û/ goes back to the old diphthong.

Once again, the development in Bavarian was different. The old diphthongs are preserved: biîtën, Bruàdà, Briàdà (with unrounding of ü).

7 Hartmann von Ouwe – a MHG text
As an example of a MHG text let us consider the following verses from one of the greatest poets of the “classical period.” Hartmann (he was probably not alone) had problems with noble ladies:

Manger grüzet mich alsô
(der gruoz tuot mich ze màze frô),
‘Hartman, gên wir schouwen
ritterliche frouwen.’
mac er mich mit gemache lân
und ıle er zuo den frowen gân!
bî frowen truwe ich nicht vervân,
wan daz ich mûede vor in stân.

Ze frowen habe ich einen sin:
als sî mir sint als bin ich in;
wand ich mac baz vertrîben
die zît mit armen wiben.
swar ich kum dâ ist ir vil,
dâ vinde ich die diu mich dâ wil;
diu istouch mînes herzens spîl,
waz toue mir ein zû hûehez zil?

Notes:
1. mit gemache lân ‘mich damit in Ruhe lassen’.
2. ile ‘eilig’.
4. wan ‘es sei denn
5. baz ‘gut’ cf. comparative besser.
6. The text is from the standard edition, Minnesangs Frühling, 33 ed. Notice the inconsistency in the use of <v> as in vinde and <f> as in frouwen. This might indicate that the change vr > fr had already taken place in the dialect of the scribe at the time the manuscript was composed. It tells us nothing about Hartmann’s original.

8 The struggle for a literary standard
In English, the upper-class dialect of London set the standard for the literary language, even if the dialects are alive and well on the street. In France, the dialect of Paris has not only established itself, but has virtually swept away the dialects.
This is not surprising given the early establishment of a strong central government in England and France, concentrating economic power and cultural influence in the capital city. Because Germany was not unified until the end of the nineteenth century, there was open competition for the role of the “standard language.”

After the passing of classical MHG, people in Germany returned to the old principle of writing one’s local dialect – insofar as German was used for writing at all. As late as 1570, seventy percent of the books published in Germany were in Latin! German first wins the upper hand between 1680 and 1690.

For other learned purposes, Latin retains its hegemony for an extended period as well. The first lectures in German at a German university were held by Christian Thomas(ius) in Leipzig during the winter semester 1687-1688. Three years later, he was run out of town on a rail. The custom of writing doctoral dissertations in Latin survived well into the nineteenth century.

During the seventeenth century, French exercised a tremendous influence in Germany and central and eastern Europe, becoming the language of polite society, a role that it retained until well into the following century and beyond. It has been said that a Danish nobleman in the eighteenth century spoke French with his wife and children, German with his servants and Danish with his dog. The practice of speaking French in preference to the local language survived in Russia until well into the nineteenth century. The first page of Tolstoy’s War and Peace is in French!

9 Literary languages
Owing to deep-going political and religious divisions in the country, German enjoyed not one, but three literary languages after the introduction of printing (Gutenberg’s Latin Bible appeared in 1455).

These can be divided into Low German, Middle German and Upper German with numerous subdivisions in each. Thus, printers used different standards in Munich and Augsburg, Frankfurt and Leipzig. The printers’ standards were generally based on one or another of the government chancery standards. In Upper Germany, das Gemein Deutsch, based on the standard of the imperial chancery of the Habsburgs played a leading role. All fourteen of the Bible translations preceding Luther used this dialect.

The eventual winner of the contest was, however, the chancery language of Meißen (East Middle German) on which the modern written language is based. Why Meißen? A glance at the dialect map shows the central location of Upper Saxony neighboring on Thuringia, Bavaria, East Franconia and Silesia. In addition, the chancery language made a number of important concessions to southern German.

10 Luther
Martin Luther did not create the German standard although his Bible translation and other writings were instrumental in establishing it. In a famous passage from his Tischreden, Luther tells us:

Ich habe keine gewisse, sonderliche, eigene sprach im teutschen, sondern brauche der gemeinen teutschen sprach, daß mich beide Ober- und Niderländer verstehen mögen. Ich red nach der sächisichen cantzeley, welcher nachfolgen alle fürsten und könige im teutsch lande . . . .

I have no particular, exceptional language of my own in German, but use the common German speech so that both speakers of upper and lower German can understand me. I speak like the Saxon chancellery which all princes and kings in Germany follow . . . .

Clearly, Luther was interested in reaching the broadest possible audience and chose his language accordingly.

Although Lutherdeutsch was to establish the standard for the modern literary language, progress was at first slow and victory not assured until more than two-hundred years after Luther’s death. The reasons are not hard to find. In the protestant north, Luther’s High German was a foreign language; in the catholic south it was a religious anathema.

11 The battle for the modern literary standard
The decisive battle was between middle and upper German in the course of the eighteenth century. The major figures in the dispute were Johann Christoph Gottsched (1700 - 1766) and Johann Balthasar Antesperg (1682-1765). Gottsched, an East Prussian and professor in Leipzig, and Antesperg, an Austrian based in Vienna, were at first
friends and collaborators in an attempt to establish a common literary language for the German-speaking territories.

Their friendship came to an end with the publication of Antesperg’s *Die kaiserliche Grammatik, oder Kunst, die deutsche Sprache recht zu reden, und ohne Fehler zu schreiben* ‘The Imperial Grammar, or the Art of speaking the German Language Correctly and Writing without Errors’ in 1747, one year before the appearance of Gottsched’s offering: *Grundlegung einer deutschen Sprachkunst* ‘Fundamentals of the Art of German’.

As might be expected, Gottsched championed *Lutherdeutsch*, the Upper Saxon standard, and Antesperg the Bavarian-Alemannic-Swabian variety dominant in the south. Empress Maria Theresia of Austria invited Gottsched to Vienna to present his views in 1749, but no immediate decision was forthcoming. Political considerations played an important role. The empress was, on the one hand, reluctant to abandon the defacto Austrian standard, but, on the other, unwilling to set up a rival standard to the one that reigned in the north as this would hardly further aspirations for a united Germany under a single crown.

The dispute continued after the death of the two principles with Janez Ziga Popovic (1705-1774), the first professor of the German language at the University of Vienna, as the most prominent exponent of the southern cause and Johann Christoph Adelung (1732-1806) a schoolmaster and private scholar based in Leipzig championing middle German. The decision was finally made along with the introduction of compulsory education in 1774, when Maria Theresia rejected a separate catholic standard and elected to join the protestant north in embracing Gottsched’s proposal.

**12 Adelung and the modern standard**

No consideration of the modern German literary standard would be complete without recognizing the extraordinary contributions of Johann Christoph Adelung (1732 - 1806). Born in Pomerania in the heart of low German territory, he made his career in Halle, Erfurt, Dresden and Leipzig in middle Germany. His works cover every aspect of the German literary language. *Grammatisches Wörterbuch der Hochdeutschen Mundart (1774 - 1786), Deutsche Sprachlehre für Schulen (1781), Umständliches Lehrgebäude der deutschen Sprache (1782), Über den deutschen Stil (1785-1786) and Anweisungen zur Orthographie (1788) are the most influential.*

What Dr. Samuel Johnson and Noah Webster did for English, Adelung did for German. What Luther started in establishing Upper Saxon as the German literary standard, Adelung completed.

The second edition of his dictionary is now available on line: <http://lexika.digitale-sammlungen.de/adelung/online/angebot> and makes fascinating reading.

**13 “Hochdeutsch”**

Yes, Luther and Adelung gave us the wonderful German literary language, but certainly the standard pronunciation (“Hochlautung”) has little to do with Upper Saxony. Where do people speak the “purer” Hochdeutsch? Why in Hannover, they say. But, a glance at the dialect map shows us that Hannover is located in Low German territory!

The confusion is partially terminological. Strictly speaking High German refers to that group of dialects spoken in the highlands south of the Benrather line and Low German to the northern dialects in the lowland coastal regions. That is, properly, the terms are purely geographical.

Nevertheless, the political dominance of High German led to an interpretation of the term “Hochsprache” as ‘official language’ or perhaps ‘superior language’. This misinterpretation is now firmly established and has even been extended to other languages. Thus, we have “Hocharabisch” for the Arabic literary language, etc. The classification of official literary varieties as “high” is an unfortunate fact of life.

But, what is it that distinguishes the German spoken in Hannover? It is simply “High German” with a “Low German” accent. It is a “spelling pronunciation” of the standard without interference of local dialect characteristics, cf. Hamburg, where the local dialect, known as “Messings,” i.e., ‘brass’(an alloy of two different metals) is a mixture of spelling pronunciation and local Low German peculiarities.
Although the German literary language had stabilized by the middle of the eighteenth century, there was no such standard for the spoken language. If the literary language is based on Meißen - Leipzig, the present-day spoken language of radio and television clearly is not. The pronunciation problem was not solved in the eighteenth century. Schiller, for example, declined to recite his own works in public because of his marked Swabian accent, which did not play well in Jena (Thuringia). Goethe is occasionally caught napping with rhymes like neige – Schmerzensreiche or Blätter – Götter.

For an intriguing list of Goethe and Schiller’s “false rhymes” see Hermann Hirt, Geschichte der deutschen Sprache, (1919:275-276).

Heinrich Heine (1797-1856) took particular delight in parodying this weakness by introducing inappropriate dialect rhymes into his poetry that did not reflect his pronunciation at all:

Es ist eine alte Geschichte,
Doch bleibt sie immer neu,
und wem es just passiert ist,
dem bricht das Herz entzwei.

But, at the turn of the century, Schiller and Goethe launched the “German National Theater,” a project that required a standardized pronunciation. A Faust with a Swabian accent would not go over well in Berlin. A Mephisto with a Basel accent would not be appreciated in Hamburg. A standard for the stage had to be developed. Goethe’s preference for the Low German spelling pronunciation of the literary language is well documented. In his conversation with Eckermann on 5 May 1824 he tells us:

Die Aussprache der Norddeutschen ließ im ganzen wenig zu wünschen übrig. Sie ist rein und kann in mancher Hinsicht als musterhaft gelten.

The pronunciation of the North Germans left little to be desired. It is pure and can be considered to be exemplary in many respects.

When Goethe became director of the theater in Weimar, he wrote a memorandum on pronunciation for actors. His instructions (1803) set the tone. Among other things, he admonishes actors to clearly distinguish between pairs like p-ß, t-d (tense and lax) as is the practice in Low German.

In another conversation with Eckermann Goethe mentions the horrific consequences of not distinguishing between voiced and voiceless stops. An actor was supposed to silence the reproaches of his lady friend by saying: “O Ende,” but said instead “O Ente.” Another said “Ich will dich den Eingeweihten (’entails’) übergeben” instead of Eingeweihten (’initiated persons’). The most amusing example is “Dein Kram geht mir zu Herze” (Kram ‘junk’, where Gram ‘grief’ was intended.) [Jespersen, Lehrbuch der Phonetik, 1932:110].

The predominance of the North German pronunciation on the stage is probably due to two separate factors. First of all, the theatrical tradition was much better established in North Germany than elsewhere. Think of Lessing (1729-1781), who had established himself as the father of modern German drama by mid-century with pieces like Minna von Barnhelm (1767) and Nathan der Weise (1779), which are still part of the standard repertory of the German theater and who is renowned for his drama critiques, Die Hamburgische Dramaturgie (1767-1769), which laid the basis for the modern German theater.

The second factor was far simpler. Given that no city or region was politically dominant, the only authority for the pronunciation of German was the spelling. In other words, if <p> ~ <b> were written differently, they should be pronounced differently as well, as in North Germany.

R. v. Räumer, Gesammelte sprachwissenschaftliche Schriften (1863:118) makes this clear:

Für die Rückwirkung der Schreibung auf die Aussprache liefert die Geschichte der hochdeutschen Sprache unter den Niederdeutschen einen merkwürdigen Beleg. Weit mehr als andere deutsche Stämme mußten die Niederdeutschen die hochdeutsche Schriftsprache erst erlernen, weil diese gar zu weit abstand von ihrer angestammten Mundart. Eben deswegen aber hatte die Volksmundart um so weniger Einfluß auf die hochdeutsche Aussprache des gebildeten Niederdeutschen. Daher konnte Kopstock mit Recht behaupten, was schon Bödiker vor ihm bemerkt hatte, daß man...
niergends buchgerechter das Hochdeutsch sprechen hört, als in manchen Teilen Niedersachsens.

‘The history of the pronunciation of High German among the Low Germans provides an interesting proof of the influence of orthography on pronunciation. The Low Germans had to learn the High German written language more than other Germans because of the distance between High German and their customary dialect. For this reason, the popular dialect had that much less influence on the pronunciation of High German among educated Low Germans. Thus, Klopstock [North German poet (1724 - 1803)] could correctly maintain (as did Bödiker [North German Grammarian (1641 - 1695)] before him) that nowhere in Germany does one hear better literary German spoken as in some parts of Lower Saxony’.

At the end of the century, the informal practice of the stage was codified by a commission composed of theater directors and linguists. The results of their investigations into the actual pronunciation employed on the stage were published as Die deutsche Bühnenaus-sprache (1898). In his introduction, the editor, Theodor Siebs writes:

Durch lange sorgfältige Pflege hat sich auf der Bühne eine besonders reine Aussprache des Deutschen herausgebildet. Die Forderung, daß hier die Werke in einheitlicher Form dargestellt werden, und die Wechselwirkung der verschiedenen Theater aufeinander haben schon seit laner Zeit dazu geführt, daß die Aussprache der Bühne fester geregelt ward als diejenige aller anderen Kreise.

Thanks to a long and careful cultivation, a particularly pure pronunciation of German has developed on the stage. The necessity to present works in a uniform manner and the mutual influence of various theaters on one another have long since established the stage pronunciation as firmer standard than that from any other source.

And as Hermann Hirt, Geschichte der deutschen Sprache, (1919: 285) tells us:


But, what is real state of the written language? In one respect, it is a dead language, but in another it has become alive again. It lives again because it is really spoken by thousands of people from their childhood on. In Magdeburg, in my parents house, I never heard anything other than pure literary German and the same must be true for many other North German cities.

Hirt goes on to point out that this is a real advantage for children brought up in this way. In the south, however, even in the cities, pure dialect prevails, or else a mixture between dialect and the literary language. Here the literary language is totally foreign and has to be learned – principally in school (ibid.).

Eighty-five years later, despite the standardizing influence of school, radio and television and American movies, which are always dubbed into literary German, little has changed. Command of literary German in the South is rather strictly regimented according to social class and degree of education. The immigrant from the North or the foreigner armed only with university German is astounded to find that there are no difficulties in communicating with the real estate agent when renting an apartment, but that it is subsequently impossible to communicate with the building superintendent, who either cannot or will not speak the standard.

In Switzerland, the situation is even more unusual. There, everyone from the chamber maid to the journalist and minister of state speaks “dialect” and literary German is reserved for writing or, when spoken, for especially formal occasions.

15 The future of the German language
What does the future hold for the awesome German language? The literary standard is well-established as the colloquial language of the North and exerts its influence over the entire German-speaking area. The greatest challenge to standard German is not dialect, but the world language – English, which is increasingly becoming the international standard for communication. Even at the German universities, once bulwarks of literary German, instruction in English is becoming...
common and no researcher who wishes to be read beyond the German-speaking triangle Germany-Switzerland-Austria would consider publishing exclusively in German.

Perhaps we are witnessing a return to the situation in the Middle Ages, where the international language – Latin – was used for “serious purposes” alongside the vernacular for everyday communication. The present day influence of English is, however, immeasurably greater than that of Latin in its heyday. Latin was, after all, the possession of only a handful of churchmen and scholars. English is everywhere and learned and used by people in all walks of life for multiple (not just religious or scholarly) purposes.

Possibly the most annoying intrusion upon the German language is the trendy use of pseudo-English words. Particularly in advertising and public relations we are bombarded by terms like Weekend-Feeling, City-Call ‘local call’, Handy ‘cell phone’ and Oldtimers ‘classic cars’.

In a similar vain, we find unnecessary and inappropriate use of English words like happy for heiter or – my favorite example – the ad by a national television station posted in bus shelters promising viewers an entire week of “Echte Deutsche Movies.”

What the future holds for the awesome German language with its four cases, six words for the and seven common ways to make the plural is uncertain. But, having beaten off the attacks of Latin and French in the past, we can expect that it will survive the onslaught of the English behemoth as well and live on as a source of insight and inspiration for the inquisitive student.
<table>
<thead>
<tr>
<th>Cultural Term</th>
<th>IE Word</th>
<th>Related Words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cities and Towns</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>city, fortress</td>
<td>pol-</td>
<td>acropolis, Indianapolis</td>
</tr>
<tr>
<td>village</td>
<td>vic-</td>
<td>Lat. vicus, Berwick</td>
</tr>
<tr>
<td><strong>Houses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>house</td>
<td>dom-</td>
<td>Lat. domus, domestic</td>
</tr>
<tr>
<td>to build</td>
<td>dem-</td>
<td>Zimmermann, timber</td>
</tr>
<tr>
<td>door</td>
<td>dhwer-</td>
<td>Tür, door</td>
</tr>
<tr>
<td><strong>Eating and Drinking</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eat</td>
<td>ed-</td>
<td>eat, edible, essen</td>
</tr>
<tr>
<td>drink</td>
<td>pok-</td>
<td>Pokal (drinking vessel)</td>
</tr>
<tr>
<td>bake</td>
<td>bhog-</td>
<td>bake</td>
</tr>
<tr>
<td>salt</td>
<td>sal-</td>
<td>salt</td>
</tr>
<tr>
<td>honey-wine</td>
<td>meli - medhu-</td>
<td>mead, Met</td>
</tr>
<tr>
<td>wine</td>
<td>wein-</td>
<td>wine</td>
</tr>
<tr>
<td><strong>Agriculture</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sow</td>
<td>seh-</td>
<td>sāen</td>
</tr>
<tr>
<td>plow</td>
<td>ar-</td>
<td>arable land</td>
</tr>
<tr>
<td>field</td>
<td>agros</td>
<td>acre</td>
</tr>
<tr>
<td><strong>Domestic Animals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cow</td>
<td>gwous</td>
<td>cow</td>
</tr>
<tr>
<td>Cultural Term</td>
<td>IE Word</td>
<td>Related Words</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>sheep</td>
<td>ovis</td>
<td>ewe, Lat. ovis</td>
</tr>
<tr>
<td>horse</td>
<td>ekuos</td>
<td>equestrian</td>
</tr>
<tr>
<td>pig</td>
<td>sūs</td>
<td>sow</td>
</tr>
<tr>
<td>pig (young)</td>
<td>porko-</td>
<td>Ferkel</td>
</tr>
<tr>
<td>dog</td>
<td>kuon</td>
<td>hound</td>
</tr>
<tr>
<td>mouse</td>
<td>mūs</td>
<td>mouse</td>
</tr>
<tr>
<td>cattle (money)</td>
<td>peku-</td>
<td>pecuniary</td>
</tr>
<tr>
<td>Clothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>naked</td>
<td>nogw-</td>
<td>nakt</td>
</tr>
<tr>
<td>to clothe oneself</td>
<td>wes-</td>
<td>Lat. vestare, vest</td>
</tr>
<tr>
<td>weave</td>
<td>webh-</td>
<td>weave</td>
</tr>
<tr>
<td>sew</td>
<td>siu-</td>
<td>sew</td>
</tr>
<tr>
<td>wool</td>
<td>uln-</td>
<td>Wolle</td>
</tr>
<tr>
<td>Transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to carry, ride</td>
<td>wegh-</td>
<td>bewegen</td>
</tr>
<tr>
<td>wheel</td>
<td>rot-</td>
<td>Rad</td>
</tr>
<tr>
<td>wheel</td>
<td>kwekulos</td>
<td>wheel</td>
</tr>
<tr>
<td>axle</td>
<td>aks</td>
<td>Achse</td>
</tr>
<tr>
<td>ox</td>
<td>uksen</td>
<td>Ochse</td>
</tr>
<tr>
<td>ship</td>
<td>naus</td>
<td>Lat. navis, navy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cultural Term</th>
<th>IE Word</th>
<th>Related Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>row</td>
<td>rē-</td>
<td>row</td>
</tr>
<tr>
<td>Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>father</td>
<td>pater</td>
<td>Lat. pater, Vater</td>
</tr>
<tr>
<td>mother</td>
<td>māter</td>
<td>Lat. māter, Mutter</td>
</tr>
<tr>
<td>brother</td>
<td>bhrāter</td>
<td>Bruder</td>
</tr>
<tr>
<td>sister</td>
<td>swesor</td>
<td>Schwester</td>
</tr>
<tr>
<td>daughter</td>
<td>dhugater</td>
<td>Tochter</td>
</tr>
<tr>
<td>wife of son</td>
<td>snusos</td>
<td>Yid. shnur</td>
</tr>
<tr>
<td>mother of son</td>
<td>swekru-</td>
<td>Schwieger(mutter)</td>
</tr>
<tr>
<td>father of son</td>
<td>swekuros</td>
<td>Schwäher</td>
</tr>
<tr>
<td>husband</td>
<td>despotis</td>
<td>despot</td>
</tr>
<tr>
<td>to marry</td>
<td>wedh-</td>
<td>wed</td>
</tr>
<tr>
<td>Religion and State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>god</td>
<td>dieus pater</td>
<td>Jupiter, *Tiwaz (cf. Tuesday)</td>
</tr>
<tr>
<td>king</td>
<td>rēgs</td>
<td>Lat. rex, rich</td>
</tr>
<tr>
<td>free man</td>
<td>viros</td>
<td>Wer(wolf)</td>
</tr>
<tr>
<td>stranger</td>
<td>ghostis</td>
<td>guest, hostile</td>
</tr>
</tbody>
</table>
The Swadesh List

Below is a list of 207 words compiled by the American linguist Morris Swadesh to search for relationships between languages.

<table>
<thead>
<tr>
<th>I</th>
<th>narrow</th>
<th>bone</th>
<th>blow</th>
<th>rub</th>
</tr>
</thead>
<tbody>
<tr>
<td>you</td>
<td>thin</td>
<td>fat (n.)</td>
<td>breathe</td>
<td>wash</td>
</tr>
<tr>
<td>he</td>
<td>woman</td>
<td>egg</td>
<td>laugh</td>
<td>wipe</td>
</tr>
<tr>
<td>we</td>
<td>man</td>
<td>horn</td>
<td>see</td>
<td>pull</td>
</tr>
<tr>
<td>you (pl.)</td>
<td>(male)</td>
<td>tail</td>
<td>hear</td>
<td>push</td>
</tr>
<tr>
<td>they</td>
<td>man</td>
<td>feather</td>
<td>know</td>
<td>throw</td>
</tr>
<tr>
<td>this</td>
<td>(human)</td>
<td>hair</td>
<td>think</td>
<td>tie</td>
</tr>
<tr>
<td>that</td>
<td>child</td>
<td>head</td>
<td>smell</td>
<td>sew</td>
</tr>
<tr>
<td>here</td>
<td>wife</td>
<td>ear</td>
<td>fear</td>
<td>count</td>
</tr>
<tr>
<td>there</td>
<td>husband</td>
<td>eye</td>
<td>sleep</td>
<td>say</td>
</tr>
<tr>
<td>who</td>
<td>mother</td>
<td>nose</td>
<td>live</td>
<td>sing</td>
</tr>
<tr>
<td>what</td>
<td>father</td>
<td>mouth</td>
<td>die</td>
<td>play</td>
</tr>
<tr>
<td>where</td>
<td>animal</td>
<td>tooth</td>
<td>kill</td>
<td>float</td>
</tr>
<tr>
<td>when</td>
<td>fish</td>
<td>tongue</td>
<td>fight</td>
<td>flow</td>
</tr>
<tr>
<td>how</td>
<td>bird</td>
<td>fingernail</td>
<td>hunt</td>
<td>freeze</td>
</tr>
<tr>
<td>not</td>
<td>dog</td>
<td>foot</td>
<td>hit</td>
<td>swell</td>
</tr>
<tr>
<td>all</td>
<td>louse</td>
<td>leg</td>
<td>cut</td>
<td>sun</td>
</tr>
<tr>
<td>many</td>
<td>snake</td>
<td>knee</td>
<td>split</td>
<td>moon</td>
</tr>
<tr>
<td>some</td>
<td>worm</td>
<td>hand</td>
<td>stab</td>
<td>star</td>
</tr>
<tr>
<td>few</td>
<td>tree</td>
<td>wing</td>
<td>scratch</td>
<td>water</td>
</tr>
<tr>
<td>other</td>
<td>forest</td>
<td>belly</td>
<td>dig</td>
<td>rain</td>
</tr>
<tr>
<td>one</td>
<td>stick</td>
<td>guts</td>
<td>swim</td>
<td>river</td>
</tr>
<tr>
<td>two</td>
<td>fruit</td>
<td>neck</td>
<td>fly (v.)</td>
<td>lake</td>
</tr>
<tr>
<td>three</td>
<td>seed</td>
<td>back</td>
<td>walk</td>
<td>sea</td>
</tr>
<tr>
<td>four</td>
<td>leaf</td>
<td>breast</td>
<td>come</td>
<td>salt</td>
</tr>
<tr>
<td>five</td>
<td>root</td>
<td>heart</td>
<td>lie</td>
<td>stone</td>
</tr>
<tr>
<td>big</td>
<td>bark</td>
<td>liver</td>
<td>sit</td>
<td>sand</td>
</tr>
<tr>
<td>long</td>
<td>flower</td>
<td>drink</td>
<td>stand</td>
<td>dust</td>
</tr>
<tr>
<td>wide</td>
<td>grass</td>
<td>eat</td>
<td>turn</td>
<td>earth</td>
</tr>
<tr>
<td>thick</td>
<td>rope</td>
<td>bite</td>
<td>fall</td>
<td>cloud</td>
</tr>
<tr>
<td>heavy</td>
<td>skin</td>
<td>suck</td>
<td>give</td>
<td>fog</td>
</tr>
<tr>
<td>small</td>
<td>meat</td>
<td>spit</td>
<td>hold</td>
<td>sky</td>
</tr>
<tr>
<td>short</td>
<td>blood</td>
<td>vomit</td>
<td>squeeze</td>
<td>wind</td>
</tr>
</tbody>
</table>

The German Language – A Guide for Inquisitive Students
The Wenker List

(Between 1876 - 1887, Georg Wenker collected dialect material from some forty thousand German villages for the Sprachatlas des Deutschen Reichs. He devised the following series of sentences intended to determine the differences between the regional dialects.

Native speakers, it’s not too late. You can give the equivalents of the following sentences in your native dialect and compare them with standard New High German and the Middle High German “Dichtersprache”. The training in phonetics in the first Chapter will help you capture the sounds and preserve your language heritage. The Chapter on sound change will help you understand what has happened to your “mother tongue” over time.)

1. Im Winter fliegen die trockenen Blätter in der Luft herum.
2. Es hört gleich auf zu schneien, dann wird das Wetter wieder besser.
3. Tu Kohlen in den Ofen, damit die Milch bald zu kochen anfängt.
4. Der gute alte Mann ist mit dem Pferd(e) auf dem Eis eingebrochen und in das kalte Wasser gefallen.
5. Er ist vor vier oder sechs Wochen gestorben.
6. Das Feuer war zu heiß, die Kuchen sind ja unten ganz schwarz gebrannt.
7. Er ißt die Eier immer ohne Salz und Pfeffer.
8. Die Füße tun mir (so sehr) weh, ich glaube, ich habe sie (mir) durchgelaufen.
9. Ich bin selber bei der Frau gewesen und habe es ihr gesagt, und sie sagte, sie wolle es auch ihrer Tochter sagen.
10. Ich will es auch nicht mehr wieder tun/machen.
11. Ich schlage dich gleich mit dem Kochlöffel um die Ohren, du Affe.
12. Wo gehst du (denn) hin? Sollen wir mitgehen (mit dir gehen)?
15. Du hast heute am meisten gelernt und bist artig gewesen, du darfst früher nach Hause gehen als die anderen.
17. Geh, sei so gut und sag deiner Schwester, sie soll die Kleider für eure Mutter fertig nähen und mit der Bürste rein machen.
19. Wer hat mir meinen Korb mit Fleisch gestohlen?
20. Er tat so, als hätten sie ihn zum Dreschen bestellt (; sie haben es aber selbst getan).
21. Wem hat er (denn) die neue Geschichte erzählt?
22. Man muß laut schreien, sonst versteht er uns nicht.
23. Wir sind müde und haben Durst.
25. Der Schnee ist diese Nacht geblieben, aber heute morgen ist er geschmolzen.
28. Ihr dürft nicht solche Kindereien treiben.
29. Unsere Berge sind nicht so (sehr) hoch, die euren sind viel höher.
30. Wiewie Pfund Wurst und wieviel Brot wollt ihr haben?
31. Ich verstehe euch nicht, ihr müßt ein bißchen lauter sprechen.
32. Habt ihr kein Stückchen weiße Seife auf meinem Tisch(e) gefunden?
33. Sein Bruder will sich zwei schöne neue Häuser in eurem Garten bauen.
34. Das Wort kam ihm von Herzen.
35. Das war recht von ihnen!
36. Was sitzen da für Vögelschen oben auf dem Mäuerchen?
38. Die Leute sind heute alle draußen auf dem Feld(e) und mähen.
39. Geh nur, der braune Hund tut dir nichts.
40. Ich bin mit den Leuten da hinten über die Wiese ins Korn gefahren.
41. Unser Nachbar hat sich eine Rippe gebrochen.
42. Das sah böse aus.
43. Jetzt steht er gerade in der Tür und will in die Kirche.
44. Wir müssen noch das Heu wenden und Holz hacken.
45. Unsere Leiter ist entzwei.
46. Ich kann den Sack auch nicht heben.
47. Mädchen, komm (her)vor!
48. Wir müssen noch den Haken suchen.
49. Ich werde euch schon heimleuchten.

In einer üblichen Mundart-Erhebung (z.B. Tonaufnahme) folgt/en dann:

- die Zahlen von 1-21 sowie 30, 40, 50, 60, 70, 80, 90, 100

- die Wochentage

- dialektrelevante Einzelwörter: heiß, nein, blau, grau, hauen, Hand, Hanf, Helm, Flachs, er wächst, Besen, Pflaumen, Brief, Hof, jung, krumm; zwei Jungen, zwei Mädchen, zwei Kinder;

- Verwandtschaftsbezeichnungen (Vetter, Base, Pate, Schwager, Schwiegermutter usw.) Freie Rede mit möglichst ortsbezogenen Themen (z.B. Sitten und Bräuche, soziale Struktur, Vereinsleben, Ortsspot, sprachliche Unterschiede gegenüber Nachbarorten, Orts-"Originale", Schweineschlachten, lustige Episoden u.a.)
Seven Ways to Form the Plural

<table>
<thead>
<tr>
<th>Group</th>
<th>Ending</th>
<th>Sing.</th>
<th>Plur.</th>
<th>Origins</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>- e</td>
<td>Arm</td>
<td>Arme</td>
<td>o-stems, masc., neut.</td>
</tr>
<tr>
<td>2</td>
<td>- e</td>
<td>Gast</td>
<td>Gäste</td>
<td>i-stems, u-stems, masc., fem., root nouns</td>
</tr>
<tr>
<td>3a</td>
<td>- en</td>
<td>Bote</td>
<td>Boten</td>
<td>n-stems, masc., neut.</td>
</tr>
<tr>
<td>3b</td>
<td>- en</td>
<td>Klage</td>
<td>Klagen</td>
<td>a-stems and n-stems, fem.</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>Schrecken</td>
<td>Schrecken</td>
<td>n-stems, masc.</td>
</tr>
<tr>
<td>5a</td>
<td>-</td>
<td>Laden</td>
<td>Läden</td>
<td>n-stems, masc.</td>
</tr>
<tr>
<td>5b</td>
<td>-</td>
<td>Mutter</td>
<td>Mütter</td>
<td>ter-stems, root nouns, masc., fem.</td>
</tr>
<tr>
<td>6</td>
<td>- er</td>
<td>Lamm</td>
<td>Lämmer</td>
<td>s-stems, neut., masc.</td>
</tr>
<tr>
<td>7</td>
<td>- s</td>
<td>Junge</td>
<td>Jungs</td>
<td>(Low German)</td>
</tr>
</tbody>
</table>

Notes:

The stem names are based on the Proto-Indo-European reconstructed forms, e.g., the o-stems = PIE *agros, Grk. agros, PG *akroz, Goth. akrs 'acre'. In general, the Indo-European word consists of root + suffix + case ending. Here in the nominative singular: agr + o + s. The root + suffix forms the stem, which is named after the suffix. Root nouns add the ending directly to the stem, e.g., PIE *nokt + es (gen.)

On the individual groups:

1. The o-stems, consisting of masculines and neuters. Actually, e/o-stems, since the e-grade alternates with the o-grade in the various case forms. The nominative singular has o - hence the name. Greek preserves the original o cf. agros 'field', Latin drops the ending after r, cf. aGer, but otherwise has -us as in filius 'son'.

2. The umlaut in the plural is caused by i/j in the suffix. Principally, this has two origins: pure i-stems (these generally agree with Latin, cf. Lat. hostis = PG *gastis < PIE *ghostis 'stranger') and u-stems (actually eu/ou-stems, eu > ju). In this case some of the case forms had j, while others did not. Under the influence of the i-stems, this was leveled to singular without umlaut and plural with umlaut, e.g., Sohn ~ Söhne. There are also feminines in this group, e.g., die Kraft ~ die Kräfte. The root nouns Nacht, Fuß, have also found refuge here.

3a. If it has an -n in the singular or plural, it comes from an n-stem! The Indo-European n-stems had an -n in all cases but the nominative singular, cf. Lat. conditio, conditionis, etc. This is still the case with German n-stems in class 3a, which are masculine animates, e.g., Junge, Knabe, Löwe, etc. This originally small group has been massively extended with loan words from Latin, e.g., der Referent, der Referenten, der Pessimist, des Pessimisten, etc. Further details in the Chapter on Gender.

3b. This is the “feminine” declension, which represents a merger of the Indo-European ā-stems (e.g., OHG klaga 'complaint') and the feminine n-stems (e.g., OHG zunga, ‘tongue’). The ā-stems had an -n in the genitive and dative plural anyway and simply adopted the nominative and accusative -n from...
the *n*-stems. In return, the *n*-stems abandoned the -*n* of the singular, where the *â*-stems had no -*n* – a far more successful merger than Daimler and Chrysler. The *r*-stem Schwester ‘sister’ also belongs here.

4. A large number of *n*-stems generalized the seven other cases to the nominative singular as well, e.g., *der Schrecken* ‘fright’, and went over to the masculine with the genitive in -ns (des Schreckens), cf. *Heuschrecke* ‘grasshopper’, with retention of the original nominative and shift to the feminine gender – most words that end in -*e* are feminine. Similarly, a large number of nouns that did not extend the -*n* to the nominative abandoned it all together in the singular and went over to 3b (feminine), e.g., MHG *der schnecke* ‘snail’, *der sonne* ‘sun’, now *die Schnecke, die Sonne*.

5a. These are masculines which went through the development described above, but borrowed umlaut (for which there was no historical justification) from Group 2. In some cases, there is disagreement as to whether a masculine noun from this group belongs to Group 4 or 5. Do you say *die Bogen* or *die Bögen, die Wagen* or *die Wägen*?

5b. Most *ter*-stems, including two feminines *Mutter, Tochter*, also have an ahistorical umlaut plural.

6. The success story in the development of the German declensional system. In Old High German, there were only a handful of *ex/os*-stems. At present there are more than a hundred plurals in *-er*. (The original *s > r* between vowels – a development also paralleled in Lat. *genus ~ generis.*) The oldest recorded forms had genitive and dative singular forms with *r*, but these were soon abandoned and the *r*-suffix came to be regarded as a plural ending, (OHG *lembir* (nom./acc.), *lembiro* (gen.), *lembirum* (dat.) in the plural become modern *Lämmer, Lämtern*. Among the words from the earliest period that belong to this class there are a suspicious number of agricultural terms: *Kalb, Rind, Huhn, Lamm, Ei, Feld, Holz, Blatt, Reis* ‘twig’ (all of which have retained the *s*-stem plural). See the discussion on “classifiers” in the text. The major reason for the success of this form is perhaps the fact that one-syllable neutrals from Group 1 did not change in the plural, e.g., MHG *das wort ~ die wort*. The search for a distinctive plural form led either to adoption of the masculine ending of Group 1 or to Group 6. In the case of *das Wort*, we have both possibilities: *die Worte* (connected speech), *die Wörter* (collection of words). The older situation is preserved in expressions like *fünf Stück Kuchen* ‘five pieces of cake’, *Herr Ober, fünf Bier, bitte* ‘Waiter, five beers, please’. This construction has been analogically extended to the masculine, e.g., *fünf Fuß lang*, but not to the feminine, e.g. *fünf Flaschen Bier*. The members of this club once had to be neutral, but now there are a number of masculines which have been admitted, e.g., *Wald, Gott, Wurm*, etc.

7. The origin is probably Low German, which like English, preserves the masculine nominative plural ending in -*s*. In Old High German, this form was replaced by the accusative. Thus, we have OE *dagas* (nom.plur.), but OHG *taga* (nom., acc. plur.). The -*s* was later extended to foreign words ending in a vowel, e.g., *Vodkas, Autos*, and native words ending in a liquid or nasal, e.g., *Mädels, Junges*, ‘girls’, ‘boys’ and personal names, e.g., *Schmidts haben uns eingeladen* ‘We have an invitation from the Schmidts’.
Mysterious-\textit{h}

1 Long vowels

In our discussion of long vowels in the PIE ablaut series, we mentioned compensatory lengthening as a major source of long vowels. In general, we invoke this standard kind of change in cases where it is clear just what sound has dropped out requiring “compensation.” Thus, we can relate Eng. \textit{five} to Goth. \textit{fimf} by showing that \textit{m} and \textit{n} in Old English regularly drop before fricatives with compensatory lengthening: \textit{fimf} > \textit{ff}, with alteration of the vowel, modern \textit{five}. This regular change explains a number of corresponding pairs in English and German: \textit{goose} ~ \textit{Gans}, \textit{soft} ~ \textit{sanft}, \textit{mouth} ~ \textit{Mund} (Goth. \textit{munþ}). Sometimes, namely before \textit{/χ/}, the nasal disappears in all the Germanic languages. Here, we can fall back on comparison within the paradigm: \textit{denken} ~ \textit{dachte}, \textit{think} ~ \textit{thought}, etc.

But, suppose there were instances in which a sound disappeared everywhere in all of the Indo-European languages leaving behind only a lengthened vowel as evidence that it was there! In 1879, the then twenty-one-year-old Swiss linguistics student Ferdinand de Saussure made just such a proposal.

In the light of subsequent developments, this one paper alone “Mémoire sur le système primitif des voyelles dans les langues indo-européennes” would probably have assured Saussure’s place in the history of linguistics. He is best known, however, for his \textit{Cours de linguistique générale} (1916), a book he did not actually write, but was put together by his colleagues working from student notes of Saussure’s lectures.

Saussure’s bold hypothesis, which went beyond the aspects considered here, has been debated and elaborated over the last hundred-thirty odd years and has lead to what is generally known as the “Laryngeal Theory.” In depth consideration would take us too far afield so we will confine our discussion here to the simplest possible formulation of the hypothesis – that Proto-Indo-European had at least one “extra” consonant, not preserved in Greek, Latin, Germanic, etc., that disappeared leaving behind compensatory lengthening as a witness to its prior existence. We will refer to this consonant as “Mysterious-\textit{h}.”
The most obvious evidence for the existence of Mysterious-\textit{h} is, perhaps, the so-called roots with heavy bases— that is, roots that end in a long vowel instead of a consonant as is usual. Three ancient and venerable roots will serve as an illustration:

\begin{itemize}
  \item *st\-
  \item *d\-
  \item *dh\-
\end{itemize}

The glosses for the first and third roots show their modern faces in English. (The \textit{n} in \textit{stand} is a present tense infix, the long vowel is reflected in the past \textit{stood}.) The root *doh- is well-known from Lat. \textit{donare} and English loan words like \textit{donor, donate}.

Like other players in the PIE ablaut game, these could appear in the reduced grade (the equivalent of the zero-grade of the short vowels). In Indo-Iranian, the reduced vowel appears as \textit{i}, and in most of the European languages as \textit{a} (Skt. \textit{stithāh} \textasciitilde Lat. \textit{status}). The classical Indo-Europeanists referred to this vowel as “schwa-indogeranicum” and assumed that it was originally a central vowel \textit{a/\textalpha/} half way between the two extremes.

Greek is a special case, showing both the expected \textit{a} as in \textit{bainō} \textasciitilde *\textit{banjō} ‘I go’ \textasciitilde \textit{ēbēn} ‘I went’ = Lat. \textit{vēni} and \textit{rēgnūmi} ‘I break’ \textasciitilde \textit{errōga} (perfect) \textasciitilde \textit{erragen} (aorist) as well as a short version of the long stem vowel as in our three verbs above:

\begin{center}
\begin{tabular}{ll}
  \textbf{Present} & \textbf{Past Part.} \\
  tithēmi ‘I place’ & tethós \\
  histāmi ‘I stand’ (Dor.) & statós \\
  didōmi ‘I give’ & dotós \\
\end{tabular}
\end{center}

At least those in \textit{ē} also showed qualitative ablaut as in Goth. \textit{ētan} \textasciitilde \textit{lelōt} ‘let’ (pres. and past) or Grk. \textit{rēgnūmi} ‘I break’ \textasciitilde \textit{errōga} (perfect).

Adding Mysterious-\textit{h} to the inventory of Proto-Indo-European sounds allows us to explain a number of long vowels in the daughter languages as the result of compensatory lengthening—a common type of sound change well-documented in other instances.

2 Corroborating evidence

A linguistic methodology that demands feet and refuses to consider footprints would be boring in the extreme and highly unsatisfying for the inquisitive student. Nevertheless, it is always encouraging to uncover empirical conformation for bold hypotheses. Surprisingly, such evidence emerged almost fifty years after Saussure’s original publication. In 1927, two scholars (Cuny and Kuryłowicz) were able to point evidence from Hittite (which had been deciphered only a decade earlier) that supported Saussure’s conjecture. For example, the Hittite root \textit{pahs-} ‘protect’ corresponds to Lat. \textit{pāstor} ‘shepperd’. Here, there really is some \textit{h/-}like sound before the final consonant of the root that shows up elsewhere as a long vowel, presumably the result of compensatory lengthening.

After this short exposition, let us now return to our topic and ask what insights Mysterious-\textit{h} will provide for the workings of the German language.

3 Aorist presents and ablaut Group VI

In our discussion of the strong verb, we noted that the present tense of the first five ablaut groups was based on the formula \textit{e + X}, where \textit{X} is a glide, resonant or obstruent. There are, however, a few present tense forms scattered throughout the Germanic languages that show a zero-grade in the present. Sometimes, both forms are found—either in the same language or in sister languages. Traditionally, the zero-grade presents are called “aorist presents” because the Greek aorist also shows the zero-grade. The clearest surviving example is perhaps the root IE *\textit{gwem-} ‘come’. In Germanic, this is reflected as *\textit{kwem-} in OHG \textit{queman} or in the past of modern Dutch \textit{kwam} (o-grade of the past singular). The zero-grade (aorist present) is reflected in *\textit{kwem-} \textasciitilde \textit{kum-} as in mod. German \textit{kommen} (with \textit{o < u} before the nasal consonant).
Two other aorist presents in modern German are *saugen* ‘suck’ and *saufen* ‘drink’. Here, the root *seuh-* is assumed with the determinative -b or -g (in Germanic only). The zero-grade *suh-p* > *süp-, OHG süfan, similarly with *suh-g-. This explanation does not, however, account for the short vowel of the past plur. and past part. unless it is analogical *suffan, gisoffan* like *zugun, gizogan* ‘pull’.

Prokasch (1938:173) sees the remnants of a system here. The e-grade presents are durative and the parallel zero-grade presents are punctual. The decay of the original system has progressed to the point that nothing definitive can be said, but certainly there is something suggestive here. In any case, the aorist present is well established as a relict, as an unsuccessful competitor to the e-present.

Now, if we turn to ablaut Group VI, we find the characteristic alternation between *a* in the present (often with a *jo-* suffix) and the long vowel *ō* in the past. This type is well-documented in Germanic, Latin and Greek. Thus, we find PG *skap(j)an ~ *skōp* ‘shape, create’ = Lat. *scabō ~ scāhī* ‘scrape’. If we accept the typological evidence and the available cognates, the development seems quite clear: The Indo-European root would be *skēhb- with the reduced grade “aorist present”. *skab- and o-grade *skohb-. The further development is quite regular: *oh > ō > uy > ū*, modern *schuf*. A similar development can be suggested for Goth. *haftjan ~ hōf* ‘grab’ ~ Lat. *capio ~ cēpē* ‘grab’, with the o-grade seen in Grk. *kōpē* ‘handle’. OHG *faran ~ fōr* ‘go’ may be analyzed in the same way.

Seen in this way, Group VI fits in with the first five groups except that it has an aorist present. The only departure from the grand scheme that remains to be explained is the extension of the vowel of the past singular to the past plural, but this is precisely the same development that we observe in ablaut Group IV during the transition to Modern German (e.g., MHG *helfen ~ half ~ halfen > NHG *helfen ~ half ~ halben*).

Thus, invoking Mysterious-*h* has provided an explanation for Group VI of the strong verbs that parallels the first five. We can dispense with the assumption of a different kind of ablaut involving *a ~ o* rather than the *e ~ o ~ ō* of the first five.

### 4 Group VII

Having brought Group VI into the fold, we might, in conclusion, turn our attention to the last class of aberrant strong verbs Group VII. Can Mysterious-*h* help us here too?

The evidence of Gothic would seem to indicate that this is, at least in part, the case. You will remember that Gothic has two basic patterns:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VIIa</td>
<td>slēpa</td>
<td>sēslēp</td>
<td>sēslēpum</td>
<td>slēpans</td>
</tr>
<tr>
<td>VIIb</td>
<td>lēta</td>
<td>lēlōt</td>
<td>lēlōtum</td>
<td>lētans</td>
</tr>
</tbody>
</table>

Group VII shows the usual *e ~ o* alternation with vowel lengthening that could be caused by Mysterious-*h*. The repetition of the e-grade in the past participle is just as in Group V: *geben ~ gegeben*. The vowel of the past singular is also generalized to the past plural as in Group VI. Group VIIa has generalized the e-grade across the board.

The difficulty is encountered with Group VIIa (the non-ablauting verbs). In addition to the vowel ē, we also find ū, aī, au, al and āh. Here is a listing:

<table>
<thead>
<tr>
<th>Group</th>
<th>Inf.</th>
<th>Past Sg.</th>
<th>Past Part.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>haitan</td>
<td>hehait</td>
<td>haitans</td>
</tr>
<tr>
<td>II</td>
<td>aukan</td>
<td>e-auk</td>
<td>aukans</td>
</tr>
<tr>
<td>IIIa</td>
<td>haldan</td>
<td>hehald</td>
<td>haldans</td>
</tr>
<tr>
<td>IIIf</td>
<td>hāhan</td>
<td>hehāh</td>
<td>hāhans</td>
</tr>
</tbody>
</table>

What immediately strikes the eye is the resemblance to the ablauting verbs.
Only IIIb requires a bit of explanation: the consonant group \( n\chi \) in Germanic has a double development depending on whether the accent originally preceded or followed. With the accent on the stem syllable the \( n \) is dropped with compensatory lengthening of the preceding vowel. If the accent follows the fricative \( \chi \) voices in accordance with Verner’s law and \( n\gamma > ng \). Thus, OHG \( \text{h\ddot{a}han} \sim \text{hiang} \text{ ‘hangen ‘hing} \) indicating that the accent was originally on the stem in the singular and the ending in the plural and past. part. with much analogical leveling (Gothic has generalized the singular form and NHG the plural form.)

These forms appear to be preterite presents of the first five strong verb groups with the vowel of the singular generalized and the past formed with reduplication.

The West Germanic forms are still difficult, but we must assume that they arise from a coalescence of the reduplication vowel with the stem vowel: \( e + a > ia \) as in OHG \( \text{halten} \sim \text{hialt} < *\text{he(h)alt}; \text{loufen} \sim \text{lof} < *\text{le(l)auf}. \) Notice that coalescence product of \( e + a \) is different from the long vowel produced by compensatory lengthening in the past plural of Group V: Goth. \( \text{g\ddot{a}bum} \), OHG \( \text{g\ddot{a}bum} < *\text{gegbum}. \)

In Middle High German \( ia, io > ie \). Through smoothing, we get the long vowel still spelled \( <ie> \), which is characteristic of the past tense of all Group VII verbs.

Someday Reading:


Kluge, Friedrich (1999) Etymologisches Wörterbuch der deutschen Sprache, 23rd ed., Berlin: de Gruyter. The standard work on the history of German words, updated and edited by Elmar Seebold. No one who is curious about German words should be without it.

Paul, Hermann, Prinzipien der Sprachgeschichte (1920), 4th ed., Tübingen: Max Niemeier. Originally published in 1890, this is the handbook of the Neogrammarians, originators of much of the theory presented in this course. Still in print and well worth reading.

Lockwood, W.B. (1968) Historical German Syntax, Oxford: Oxford University Press. The syntax in the present volume is descriptive, confined mostly to the modern language. Lockwood gives an understandable book-length treatment to the history of German syntax (including the case system).


Waterman, John T. (1991) *History of the German Language: With Special Reference to the Cultural and Social Forces That Shaped the Standard Literary Language*, Waveland Press. If you are going to read one book on the subject, this is the one to read. For many readers, Kirk and Sperber/von Polenz may be too compact. Waterman takes the time and space to explain things thoroughly. Maps and illustrations are also included.

Wright, Joseph (1907) *Historical German Grammar*, Oxford: Oxford University Press. The book to consult for the details when you wake up in a cold sweat in the middle of the night. Unfortunately, out of print but available online: <https://ia700500.us.archive.org/10/items/historicalgerman01wriguoft/historicalgerman01wriguoft.pdf>.

Review Questions:

**Chapter 1: Discovering the German Language**

1. What is the difference between the approach taken in this course and “school German”?

2. In what way does foreign language instruction differ from math and science instruction in school?

3. How can an analysis of the history and structure of German help you in your future career?

**Chapter 2: The Sound of German**

4. What is the modern authority for the standard German pronunciation (“Hochlautung”)?

5. How does the German standard pronunciation differ from that of French or Italian?

6. What are stops, fricatives, affricates?

7. What is the difference between obstruents and sonorants?

8. What are nasal sounds?

9. Why are words like *Journalist* and *Dschungel* difficult for native speakers of German to pronounce?

10. What is the German Final Devoicing Rule? Why is it important for learning foreign languages?

11. What is the origin of “Vogel-V”?

12. Where does the letter <w> come from?

13. Explain tense and lax, rounded and unrounded vowels.

14. What is the rule for German vowel length?
15. What is difference between stress timing and syllable timing?

Chapter 3: Sound Change

16. What sources of evidence do we have for sound change?

17. In older German, there were long consonants in words like bitten, where the consonant is doubled. What does this indicate now? How did this change take place?

18. The French word veau corresponds to English veal. What sound change does this illustrate? Give an example for a similar change in Bavarian.

19. What is the relationship between German küssen and English kiss.

20. What is the relationship between German Ross and English horse?

21. What accounts for umlaut in German Hand - Hände? How can we use this to explain the relationship between English full - fill? (Two sound changes are involved.)

22. What is the relationship between German Kinn and English chin?

23. Is the word pair boat - Boot an exception to regular sound change? Explain?

24. Why did Grimm believe that sound change “skipped over” some words? How did die Junggrammatiker establish the regularity of sound change?

25. What is “Systemzwang”? Give an example.

Chapter 4: The Comparative Method I - English and German

26. Explain the German pronunciation of Handy /hændi/ in comparison to the English word it was borrowed from handy /hændi/.

27. How can we account for similar words in two different languages (similar meaning and similar form)?

28. How do we explain the strange fact that German has ch wherever English has silent gh?

29. English and German have many similar words like: Vater - father, Salz - salt. How do we know that English did not borrow these words form German?

30. There are also striking parallels between English and French vocabulary, e.g., face - face, sauvier - savior, royal - royal. How do we know that English is not a Romance language?

31. How does verb inflection show that German and English (but not French and English) are “affectionate sisters”?

32. Why can’t we use syntax (sentence structure) to prove kinship between languages?

33. Describe the development of p,t,k of the mother tongue in German and English. How do we know whether English or German represents the original state?

Chapter 5: The Comparative Method II – Researching the past

34. In the Renaissance, scholars generally believed that the source of all languages was?

35. Why were Cruciger’s attempts to prove this unscientific?
36. Jacob Grimm is best known for his collection of fairytales. What was his contribution to the science of language?

37. How did Karl Verner explain the “exceptions” to Grimm’s law?

38. Is Proto-Indo-European the mother of all languages? Explain.

39. How can we surmise that the Indo-Europeans had dogs, but no cats?

Chapter 6: The German Noun - Seven Ways to Form the Plural

40. How does plural formation in German differ from that in most of the other modern Germanic languages (English, Dutch, etc.)?

41. What profound change marks the transition between Old High German and Middle High German?

42. Why is the plural of Arm, Arme (without umlaut), but the plural of Gast, Gäste (with umlaut)?

43. What do we mean by n–stems? How do the masculine n–stems differ from the feminine n–stems in modern German?

44. How did the a-stems (e.g., klage) merge with the n–stems (e.g., zunge)?

45. What is the origin of the plural ending -er with umlaut?

46. What ending marks close family relationships?

Chapter 7: Gender

47. Gender is a relationship of dominance between a noun, its modifiers and substitutes. Explain?

Chapter 8: Case

48. What is the difference between natural and grammatical gender?

49. Why are the three genders called “masculine, feminine and neuter”? Is this an accurate classification?

50. What are classifiers?

51. Mark Twain complains bitterly that girl is neuter and turnup is feminine in German. How can we answer his complaint?

52. How is the gender of foreign nouns determined when they are borrowed into German?

53. What is meant by “gender mobility”?

54. Why are Studenten not Studierende?

55. Explain the difference between deep, surface and inflectional case. Give examples.

56. Is there a one-to-one correspondence between deep and surface case in German? Give an example.

57. What is case syncretism?

58. What is physical case?

59. How do the prepositions auf and zu differ when they apply to physical case?

60. What is metaphoric case? What special difficulties does it present?

61. Where do prepositions come from?

62. What are some of the functions of the dative case?
63. What is the status of the genitive case used with verbs?

Chapter 9: The Verb - Strong and Weak

64. What is the difference between “strong” and “weak” verbs?

65. How many principal parts, i.e. singen ~ sang ~ gesungen, did the Germanic verb have?

66. Explain the basic pattern of the Germanic verb. What determines the difference in the first five groups?

67. What is reduplication?

68. How do we explain the difference between: beissen ~ biss ~ gebissen and heißen ~ heiß ~ geheißt?

69. Why does the verb wissen have two different vowels in the present (weiß ~ wissen)?

70. How do we explain the change in the stem vowel of the strong verbs: er gibt ~ sie geben?

71. How do we explain the change in consonant between schneiden ~ schnitt ~ geschnitten or English was ~ were?

72. What is the origin of the n in ich bin?

73. How do the “weak verbs” form their past tense?

Chapter 10: Pronouns and Adjectives – a Radical Reanalysis

74. What is a clitic?

75. How do we account for the amazing similarity between the declension of articles, demonstratives and strong adjectives (e.g., der Mann, dieser Mann, ein größer Mann, etc.)

76. What role do sentence-introducing particles play in the Indo-European languages?

77. What in the world does Hittite have to tell us about modern German?

78. What is Hirt’s analysis of “weak” adjectives?

79. Explain the relationship between NHG ihm and Mod. Eng. him.

80. How do forms like größer+er+er confirm the clitic theory?

81. Explain Mod. German relative pronouns. Give the derivation der Mann, den ich gesehen habe.

82. What is a resumptive pronoun?

83. Why do some comparative forms have umlaut (groß ~ größer), while others do not (glatt ~ glatter)?

Chapter 11: Personal pronouns and numbers

84. Explain the German name of the flower “forget me not.” How does this differ from the usual construction?

85. Consider the pronouns uns, euch. Both are used for the dative and accusative. Where do the forms come from? What explains the difference in the endings of the two forms?
What are the English equivalents of German *du, ihr*? Explain the differences between the English and the German forms.

What is the origin of the numeral *eins*?

Explain the two forms of ‘two’ (*zwei, zwo*) in German.

Explain the relationship between Lat. *quattuor* and Germ. *vier*.

What does the number eight have to tell us about how sound shifts work?

What is the origin of the numbers *hundert, tausend*?

What is the German equivalent of U.S. ‘one billion’?

How do we explain *other* in *every other day*?

Chapter 12: Syntax

What do we mean by “the vastness of syntax”?

What is the V-II rule?

Explain the bracket rule.

Consider the sentence: *Ich habe meinen Freund gestern auf dem Bahnhof gesehen.*

1. How many orders of the six constituents are mathematically possible?
2. How many orders are “legal” sentences in German?
3. Is it possible that the legal orders of constituents were learned from experience?

What is the difference between the treatment of “separable prefixes” in German and English?

How do German and English differ with respect to extended participial constructions?

The German Language – A Guide for Inquisitive Students

What is “stranding”?

Consider the sentence: *Why do you think O.J. did it? ~ Warum glaubst Du, dass O.J. es getan hat?*

1. What are the two interpretations of this sentence in English?
2. Why does the German version have only one interpretation?

Consider the sentence: *Susi ist doof und ich bin *es* auch.*

1. What are the two interpretations of this sentence in English?
2. What difference is there between English and German here?
3. How do we know that the underlying structure is the same in both languages?

Explain the difference between English *It's me* and German *Ich bin es.*

How do German and English differ with respect to the Freezing Parameter? Give an example.

What is the difference between Passive in English and German?

What is the major difference between Extraposition in English and German?

The German pronoun *sich* is usually referred to as a “reflexive pronoun.” Why is this description inadequate?

Consider: *Die Tür öffnete sich.* Did the door really open itself? Explain.

Chapter 13: The Origins of German

What evidence do we have for locating the Indo-European “homeland”?
Chapter 14: The Germanic Languages

110. Why is this evidence unreliable? Can archeology help us?

111. Where is the original homeland of the Germanic peoples located?

112. What is the “First Sound Shift”? How can cannabis help us date it?

113. What is the “Second Sound Shift”? How can Attila the Hun help us date it?

Chapter 15: The Earliest Writings

114. What are “runes”?

115. Who is responsible for the earliest extensive literary record of a Germanic language?

116. How did writing in German begin?

Chapter 16: Middle High German – New High German

117. What is the major difference separating Old High German from Middle High German?

118. How do we explain the late appearance of umlaut (secondary umlaut)?

122. How does the establishment of the German literary language differ from that of the English or French literary language?

123. Describe the influence of Martin Luther on the development of the German literary language.

124. Who was Johann Christoph Adelung? Why bother remembering him today?

125. Why do people speak the best “Hochdeutsch” in Hannover, which is a city in Low German territory?

126. What is the origin of the “official” pronunciation of German?