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# The Indo-European Family of Languages

### 13. *Language Constantly Changing.*

In the mind of the average person language is associated with writing and calls up a picture of the printed page. From Latin or French as we meet it in literature we get an impression of something uniform and relatively fixed. We are likely to forget that writing is only a conventional device for recording sounds and that language is primarily speech. Even more important, we tend to forget that the Latin of Cicero or the French of Voltaire is the product of centuries of development and that language as long as it lives and is in actual use is in a constant state of change.

Speech is the product of certain muscular movements. The sounds of language are produced by the passage of a current of air through cavities of the throat and face controlled by the muscles of these regions. Any voluntary muscular movement when constantly repeated is subject to gradual alteration. This is as true of the movements of the organs of speech as of any other parts of the body, and the fact that this alteration takes place largely without our being conscious of it does not change the fact or lessen its effects. Now any alteration in the position or action of the organs of speech results in a difference in the sound produced. Thus each individual is constantly and quite unconsciously introducing slight changes in his or her speech. There is no such thing as uniformity in language. Not only does the speech of one community differ from that of another, but the speech of different individuals of a single community, even different members of the same family, also is marked by individual peculiarities. Members of a group, however, are influenced by one another, and there is a general similarity in the speech of a given community at any particular time. The language of any district or even country is only the sum total of the individual speech habits of those composing it and is subject to such changes as occur in the speech of its members, so far as the changes become general or at least common to a large part of it.

Although the alteration that is constantly going on in language is for the most part gradual and of such nature as often to escape the notice of those in whose speech it is taking place, after a period of time the differences that grow up become appreciable. If we go back to the eighteenth century we find Alexander Pope writing

Good-nature and good-sense must even join;  
To err is human, to forgive, divine....

where it is apparent that he pronounced *join* as *jine*. Again he writes

Here thou, great Anna! whom three realms obey,  
Dost sometimes counsel take—and sometimes Tea.

It is demonstrable that he pronounced *tea* as *tay*. Elsewhere he rhymes *full—rule; give—believe; glass—place; ear—repair; lost—boast; thought—fault; obliged—besieged; reserve—starve*. Since Pope's time the pronunciation of at least one in each of these pairs has changed so that they are no longer considered good rhymes. If we go back to Chaucer, or still further, to King Alfred (871–899), we find still greater differences. King Alfred said *bān* (bone), *hū* (how), *hēah* (high); in fact all the long vowels of his pronunciation have undergone such change as to make the words in which they occur scarcely recognizable to the typical English-speaking person today.

#### 14. *Dialectal Differentiation.*

As previously remarked, where constant communication takes place among the people speaking a language, individual differences become merged in the general speech of the community, and a certain conformity prevails. But if any separation of one community from another takes place and lasts for a considerable length of time, differences grow up between them. The differences may be slight if the separation is slight, and we have merely local dialects. On the other hand, they may become so considerable as to render the language of one district unintelligible to the speakers of another. In this case we generally have the development of separate languages. Even where the differentiation has gone so far, however, it is usually possible to recognize a sufficient number of features which the resulting languages still retain in common to indicate that at one time they were one. It is easy to perceive a close kinship between English and German. *Milch* and *milk*, *brot* and *bread*, *fleisch* and *flesh*, *wasser* and *water* are obviously only words that have diverged from a common form. In the same way a connection between Latin and English is indicated by such correspondences as *pater* with English *father*, or *frāter* with *brother*, although the difference in the initial consonants tends somewhat to obscure the relationship. When we notice that *father* corresponds to Dutch *vader*, Gothic *fadar*, Old Norse *faðir*, German *vater*, Greek *patēr*, Sanskrit *pitar-*, and Old Irish *athir* (with loss of the initial consonant), or that English *brother* corresponds to Dutch *broeder*, German *bruder*, Greek *phrātēr*, Sanskrit *bhrātār-*, Old Slavic *bratŭ*, Irish *brathair*, we are led to the hypothesis that the languages of a large part of Europe and part of Asia were at one time identical.

#### 15. *The Discovery of Sanskrit.*

The most important discovery leading to this hypothesis was the recognition that Sanskrit, a language of ancient India, was one of the languages of the group. This was first suggested in the latter part of the eighteenth century and fully established by the

beginning of the nineteenth.<sup>1</sup> The extensive literature of India, reaching back further than that of any of the European languages, preserves features of the common language much older than most of those of Greek or Latin or German. It is easier, for example, to see the resemblance between the English word *brother* and the Sanskrit *bhrātar*-than between *brother* and *frāter*. But what is even more important, Sanskrit preserves an unusually full system of declensions and conjugations by which it became clear that the inflections of these languages could likewise be traced to a common origin. Compare the following forms of the verb *to be*:

<i>Old English</i>		<i>Gothic</i>	<i>Latin</i>	<i>Greek</i>	<i>Sanskrit</i>
eom	( <i>am</i> )	im	sum	eimi	asmi
eart	( <i>art</i> )	is	es	ei	asi
is	( <i>is</i> )	ist	est	esti	asti
sindon	( <i>are</i> )	sijum	sumus	esmen	smas
sindon	( <i>are</i> )	sijuþ	estis	este	stha
sindon	( <i>are</i> )	sind	sunt	eisi	santi

The Sanskrit forms particularly permit us to see that at one time this verb had the same endings (*mi, si, ti, mas, tha, nti*) as were employed in the present tense of other verbs, for example:

<i>Sanskrit</i>	<i>Greek</i>	
dádāmi	dídōmi	( <i>I give</i> )
dádāsi	dídōs	
dádāti	dídōsi	
dadmás	dídomen	( <i>dial. didomes</i> )
datthá	dídote	
dáda(n)ti	didóāsi	( <i>dial. dídonti</i> )

The material offered by Sanskrit for comparison with the other languages of the group, both in matters of vocabulary and inflection, was thus of the greatest importance. When we add that Hindu grammarians had already gone far in the analysis of the language, had recognized the roots, classified the formative elements, and worked out the rules according to which certain sound-changes occurred, we shall appreciate the extent to which the discovery of Sanskrit contributed to the recognition and determination of the relation that exists among the languages to which it was allied.

<sup>1</sup> In a famous paper of 1786, Sir William Jones, who served as a Supreme Court justice in India, proposed that the affinity of Sanskrit to Greek and Latin could be explained by positing a common, earlier source. See Garland Cannon, *The Life and Mind of Oriental Jones: Sir William Jones, the Father of Modern Linguistics* (Cambridge, UK, 1990), pp. 241–70.

### 16. Grimm's Law.

A further important step was taken when in 1822 a German philologist, Jacob Grimm, following up a suggestion of a Danish contemporary, Rasmus Rask, formulated an explanation that systematically accounted for the correspondences between certain consonants in the Germanic languages and those found for example in Sanskrit, Greek, and Latin. His explanation, although subsequently modified and in some of the details of its operation still a subject of dispute, is easily illustrated. According to Grimm, a *p* in Indo-European, preserved as such in Latin and Greek, was changed to an *f* in the Germanic languages. Thus we should look for the English equivalent of Latin *piscis* or *pēs* to begin with an *f*, and this is what we actually find, in *fish* and *foot* respectively. What is true of *p* is true also of *t* and *k*: in other words, the original voiceless stops (*p*, *t*, *k*) were changed to fricatives (*f*, *þ*, *h*). So Latin *trēs*=English *three*, Latin *centum*=English *hundred*. A similar correspondence can be shown for certain other groups of consonants,<sup>2</sup> and the Consequently Sanskrit *bhārāmi* (Greek  $\phi\acute{\epsilon}\rho\omega$ )=English *bear*, Sanskrit *dhā*=English *do*, Latin *hostis* (from *\*ghostis*)=English *guest*. And the original voiced stops (*b*, *d*, *g*) changed to voiceless ones in the Germanic languages, so that Latin *cannabis*=English *hemp* (showing also the shift of initial *k* to *h*), Latin *decem*=English *ten*, Latin *genu*=English *knee*. In High German some of these consonants underwent a further change, known as the Second or High German Sound-Shift. It accounts for such differences as we see in English *open* and German *offen*, English *eat* and German *essen*. formulation of these correspondences is known as Grimm's Law. The cause of the change is not known. It must have taken place sometime after the segregation of the Germanic from neighboring dialects of the parent language. There are words in Finnish borrowed from Germanic that do not show the change and that therefore must have resulted from a contact between Germanic and Finnish before the change occurred. There is also evidence that the shifting was still occurring as late as about the fifth century B.C. It is often assumed that the change was due to contact with a non-Germanic population. The contact could have resulted from the migration of the Germanic tribes or from the penetration of a foreign population into Germanic territory. Whatever its cause, the Germanic sound-shift is the most distinctive feature marking off the Germanic languages from the languages to which they are related.

Certain apparent exceptions to Grimm's Law were subsequently explained by Karl Verner and others. It was noted that between such a pair of words as Latin *centum* and English *hundred* the correspondence between the *c* and *h* was according to rule, but that between the *t* and *d* was not. The *d* in the English word should have been a voiceless fricative, that is, a *þ*. In 1875 Verner showed that when the Indo-European accent was not on the vowel immediately preceding, such voiceless fricatives became voiced in Germanic. In West Germanic the resulting *ð* became a *d*, and the word *hundred* is therefore quite regular in its correspondence with *centum*. The explanation was of importance in accounting for the forms of the preterite tense in many strong verbs. Thus

<sup>2</sup> The aspirates (*bh*, *dh*, *gh*) became voiced fricatives (*v*, *ð*, *γ*) then voiced stops (*b*, *d*, *g*).

in Old English the preterite singular of *cweþan* (to say) is *ic cwæþ* but the plural is *we cwædon*. In the latter word the accent was originally on the ending, as it was in the past participle (*cweden*), where we also have a *d*.<sup>3</sup> The formulation of this explanation is known as Verner's Law, and it was of great significance in vindicating the claim of regularity for the sound-changes that Grimm's Law had attempted to define.

### 17. *The Indo-European Family.*

The languages thus brought into relationship by descent or progressive differentiation from a parent speech are conveniently called a family of languages. Various names have been used to designate this family. In books written a century ago the term *Aryan* was commonly employed. It has now been generally abandoned and when found today is used in a more restricted sense to designate the languages of the family located in India and the plateau of Iran. A more common term is *Indo-Germanic*, which is the most usual designation among German philologists, but it is open to the objection of giving undue emphasis to the Germanic languages. The term now most widely employed is *Indo-European*, suggesting more clearly the geographical extent of the family. The parent tongue from which the Indo-European languages have sprung had already become divided and scattered before the dawn of history. When we meet with the various peoples by whom these languages are spoken they have lost all knowledge of their former association. Consequently we have no written record of the common Indo-European language. By a comparison of its descendants, however, it is possible to form a fair idea of it and to make plausible reconstructions of its lexicon and inflections.

The surviving languages show various degrees of similarity to one another, the similarity bearing a more or less direct relationship to their geographical distribution. They accordingly fall into eleven principal groups: Indian, Iranian, Armenian, Hellenic, Albanian, Italic, Balto-Slavic, Germanic, Celtic, Hittite, and Tocharian. These are the branches of the Indo-European family tree, and we shall look briefly at each.<sup>4</sup>

### 18. *Indian.*

The oldest literary texts preserved in any Indo-European language are the Vedas or sacred books of India. These fall into four groups, the earliest of which, the *Rig-veda*, is a

<sup>3</sup> Cf. the change of *s* to *z* (which became *r* medially in West Germanic) in the form of *cēosan*—*cēas*—*curon*—*coren* noted in § 46.

<sup>4</sup> For a recent theory of a "superfamily" called Nostratic, which would include a number of Eurasian language families, see Mark Kaiser and V. Shevoroshkin, "Nostratic," *Annual Review of Anthropology*, 17 (1988), 309–29. Vladislav M. Illich-Svitych and Aron Dolgopolsky have proposed that the Indo-European, the Afro-Asiatic, and the Dravidian language families, among others, are related in this superfamily. See also Colin Renfrew, "The Origins of Indo-European Languages," *Scientific American*, 261 (October 1989), 106–14.

collection of about a thousand hymns, and the latest, the *Atharva-veda*, a body of incantations and ritual formulas connected with many kinds of current religious practice. These books form the basis of Brahman philosophy and for a long time were preserved by oral transmission by the priests before being committed to writing. It is therefore difficult to assign definite dates to them, but the oldest apparently go back to nearly 1500 B.C. The language in which they are written is known as Sanskrit, or to distinguish it from a later form of the language, Vedic Sanskrit. This language is also found in certain prose writings containing directions for the ritual, theological commentary, and the like (the *Brahmanas*), meditations for the use of recluses (the *Aranyakas*), philosophical speculations (the *Upanishads*), and rules concerning various aspects of religious and private life (the *Sutras*).

The use of Sanskrit was later extended to various writings outside the sphere of religion, and under the influence of native grammarians, the most important of whom was Panini in the fourth century B.C., it was given a fixed, literary form. In this form it is known as Classical Sanskrit. Classical Sanskrit

is the medium of an extensive Indian literature including the two great national epics the *Mahabharata* and the *Ramayana*, a large body of drama, much lyric and didactic poetry, and numerous works of a scientific and philosophical character. It is still cultivated as a learned language and formerly held a place in India similar to that occupied by Latin in medieval Europe. At an early date it ceased to be a spoken language.

Alongside of Sanskrit there existed a large number of local dialects in colloquial use, known as Prakrits. A number of these eventually attained literary form; one in particular, Pāli, about the middle of the sixth century B.C. became the language of Buddhism. From these various colloquial dialects have descended the present languages of India, Pakistan, and Bangladesh, spoken by some 600 million people. The most important of these are Hindi, Urdu (the official language of Pakistan), Bengali (the official language of Bangladesh), Punjabi, and Marathi. Urdu is by origin and present structure closely related to Hindi, both languages deriving from Hindustani, the colloquial form of speech that for four centuries was widely used for intercommunication throughout northern India. Urdu differs from Hindi mainly in its considerable mixture of Persian and Arabic and in being written in the Perso-Arabic script instead of Sanskrit characters. Romany, the language of the Gypsies, represents a dialect of northwestern India which from about the fifth century A.D. was carried through Persia and into Armenia and from there has spread through Europe and even into America.

### 19. Iranian.

Northwest of India and covering the great plateau of Iran is the important group of languages called Iranian. The Indo-European population that settled this region had lived and probably traveled for a considerable time in company with the members of the Indian branch. Such an association accounts for a number of linguistic features that the two groups have in common. Of the people engaged in this joint migration a part seem to have decided to settle down on this great tableland while the rest continued on into India.

Subsequent movements have carried Iranian languages into territories as remote as southern Russia and central China. From early times the region has been subjected to Semitic influence, and many of the early texts are preserved in Semitic scripts that make accurate interpretation difficult. Fortunately the past few decades have seen the recovery of a number of early documents, some containing hitherto unknown varieties of Iranian speech, which have contributed greatly to the elucidation of this important group of languages.

The earliest remains of the Iranian branch fall into two divisions, an eastern and a western, represented respectively by Avestan and Old Persian. Avestan is the language of the Avesta, the sacred book of the Zoroastrians. It is some-times called Zend, although the designation is not wholly accurate. Strictly speaking, Zend is the language only of certain late commentaries on the sacred text. The Avesta consists of two parts, the Gathas or metrical sermons of Zoroaster, which in their original form may go back as far as 1000 B.C., and the Avesta proper, an extensive collection of hymns, legends, prayers, and legal prescriptions that seem to spring from a period several hundred years later. There is considerable difference in the language of the two parts. The other division of Iranian, Old Persian, is preserved only in certain cuneiform inscriptions which record chiefly the conquests and achievements of Darius (522–486 B.C.) and Xerxes (486–466 B.C.). The most extensive is a trilingual record (in Persian, Assyrian, and Elamite) carved in the side of a mountain at Behistan, in Media, near the city of Kirmanshah. Besides a representation of Darius with nine shackled prisoners, the rebel chieftains subjugated by him, there are many columns of text in cuneiform characters. A later form of this language, found in the early centuries of our era, is known as Middle Iranian or Pahlavi, the official language of church and state during the dynasty of the Sassanids (A.D. 226–652). This is the ancestor of modern Persian. Persian, also known as Farsi, has been the language of an important culture and an extensive literature since the ninth century. Chief among the literary works in this language is the great Persian epic the *Shahnamah*. Persian contains a large Arabic admixture so that today its vocabulary seems almost as much Arabic as Iranian. In addition to Persian, several other languages differing more or less from it are today in use in various provinces of the old empire—Afghan or Pashto and Baluchi in the eastern territories of Afghanistan and Pakistan, and Kurdish in the west, in Kurdistan. Besides these larger groups there are numerous languages and dialects in the highlands of the Pamir, on the shores of the Caspian Sea, and in the valleys of the Caucasus.

## 20. *Armenian.*

Armenian is found in a small area south of the Caucasus Mountains and the eastern end of the Black Sea. The penetration of Armenians into this region is generally put between the eighth and sixth centuries B.C. They evidently came into their present location by way of the Balkans and across the Hellespont. The newcomers conquered a population of which remnants are still perhaps to be found in the Caucasus and whose language may have influenced Armenian in matters of accent and phonology. Armenian shows a shifting of certain consonants that recalls the shifts in Germanic described above and which, like those, may be due to contact with other languages. Moreover, like the south

Caucasus languages, Armenian lacks grammatical gender. Armenian is not linked to any other special group of the Indo-European family by common features such as connect Indian with Iranian. It occupies a somewhat isolated position. But in ancient times Thrace and Macedonia were occupied by two peoples—the Thraco-Phrygians, whom Herodotus mentions as very numerous, and the Macedonians, whose kings for a time adopted Greek and enjoyed a short but brilliant career in Greek history. The Phrygians, like the Armenians, passed into Asia Minor and are familiar to us as the Trojans of Homer. Their language shows certain affinities with Armenian; and, if we knew more about it, we should probably find in it additional evidence for the early association of the two peoples. Unfortunately we have only scanty remains of Phrygian and Macedonian—chiefly place names, glosses, and inscriptions—enough merely to prove their Indo-European character and give a clue to the linguistic affiliation.

Armenian is known to us from about the fifth century of our era through a translation of the Bible in the language. There is a considerable Armenian literature, chiefly historical and theological. The Armenians for several centuries were under Persian domination, and the vocabulary shows such strong Iranian influence that Armenian was at one time classed as an Iranian language. Numerous contacts with Semitic languages, with Greek, and with Turkish have contributed further to give the vocabulary a rich character.

## 21. *Hellenic.*

At the dawn of history the Aegean was occupied by a number of populations that differed in race and in language from the Greeks who entered these regions later. In Lemnos, in Cyprus, and Crete especially, and also on the Greek mainland and in Asia Minor, inscriptions have been found written in languages which may in some cases be Indo-European and in others are certainly not. In the Balkans and in Asia Minor were languages such as Phrygian and Armenian, already mentioned, and certainly Indo-European, as well as others (Lydian, Carian, and Lycian) that show some resemblance to the Indo-European type but whose relations are not yet determined. In Asia Minor the Hittites, who spoke an Indo-European language (see § 27), possessed a kingdom that lasted from about 2000 to 1200 B.C.; and in the second millennium B.C. the eastern Mediterranean was dominated, at least commercially, by a Semitic people, the Phoenicians, who exerted a considerable influence upon the Hellenic world.

Into this mixture of often little-known populations and languages the Greeks penetrated from the north shortly after a date about 2000 B.C. The entrance of the Hellenes into the Aegean was a gradual one and proceeded in a series of movements by groups speaking different dialects of the common language. They spread not only through the mainland of Greece, absorbing the previous populations, but also into the islands of the Aegean and the coast of Asia Minor. The earliest great literary monuments of Greek are the Homeric poems the *Iliad* and the *Odyssey*, believed to date from the eighth century B.C. Of the Greek language we recognize five principal dialectal groups: the Ionic, of which Attic is a subdialect, found (except for Attic) in Asia Minor and the islands of the Aegean Sea; Aeolic in the north and northeast; Arcadian-Cyprian in the Peloponnesus and Cyprus; Doric, which later replaced Arcadian in the Peloponnesus; and



Northwest Greek in the north central and western part of the Greek mainland. Of these, Attic, the dialect of the city of Athens, is by far the most studied. It owes its supremacy partly to the dominant political and commercial position attained by Athens in the fifth century, partly to the great civilization that grew up there. The achievements of the Athenians in architecture and sculpture, in science, philosophy, and literature in the great age of Pericles (495–429 B.C.) and in the century following were extremely important for subsequent civilization. In Athens were assembled the great writers of Greece—the dramatists Æchylus, Euripides, and Sophocles in tragedy, Aristophanes in comedy, the historians Herodotus and Thucydides, the orator Demosthenes, the philosophers Plato and Aristotle. Largely because of the political and cultural prestige of Athens, the Attic dialect became the basis of a *koiné* or common Greek that from the fourth century superseded the other dialects; the conquests of Alexander (336–323 B.C.) established this language in Asia Minor and Syria, in Mesopotamia and Egypt, as the general language of the eastern Mediterranean for purposes of international communication. It is chiefly familiar to modern times as the language of the New Testament and, through its employment in Constantinople and the Eastern Empire, as the medium of an extensive Byzantine literature. The various dialects into which the language of modern Greece is divided represent the local differentiation of this *koiné* through the course of centuries. At the present time two varieties of Greek (commonly called Romaic, from its being the language of the eastern Roman Empire) are observable in Greece. One, the popular or demotic, is the natural language of the people; the other, the “pure,” represents a conscious effort to restore the vocabulary and even some of the inflections of ancient Greek. Both are used in various schools and universities, but the current official position favors the demotic.

## 22. *Albanian.*

Northwest of Greece on the eastern coast of the Adriatic is the small branch named Albanian. It is possibly the modern remnant of Illyrian, a language spoken in ancient times in the northwestern Balkans, but we have too little knowledge of this early tongue to be sure. Moreover, our knowledge of Albanian, except for a few words, extends back only as far as the fifteenth century of our era, and, when we first meet with it, the vocabulary is so mixed with Latin, Greek, Turkish, and Slavonic elements—owing to conquests and other causes—that it is somewhat difficult to isolate the original Albanian. For this reason its position among the languages of the Indo-European family was slow to be recognized. It was formerly classed with the Hellenic group, but since the beginning of the present century it has been recognized as an independent member of the family.

## 23. *Italic.*

The Italic branch has its center in Italy, and to most people Italy in ancient times suggests Rome and the language of Rome, Latin. But the predominant position occupied by Latin in the historical period should not make us forget that Latin was only one of a number of languages once found in this area. The geographical situation and agreeable climate of

the peninsula seem frequently and at an early date to have invited settlement, and the later population represents a remarkably diverse culture. We do not know much about the early neolithic inhabitants; they had been largely replaced or absorbed before the middle of the first millennium B.C. But we have knowledge of a number of languages spoken in different districts by the sixth century before our era. In the west, especially from the Tiber north, a powerful and aggressive people spoke Etruscan, a non-Indo-European language. In northwestern Italy was situated the little known Ligurian. Venetic in the northeast and Messapian in the extreme southeast were apparently offshoots of Illyrian, already mentioned. And in southern Italy and Sicily, Greek was the language of numerous Greek colonies. All these languages except Etruscan were apparently Indo-European. More important were the languages of the Italic branch itself. Chief of these in the light of subsequent history was Latin, the language of Latium and its principal city, Rome. Closely related to Latin were Umbrian, spoken in a limited area northeast of Latium, and Oscan, the language of the Samnites and of most of the southern peninsula except the extreme projections. All of these languages were in time driven out by Latin as the political influence of Rome became dominant throughout Italy. Nor was the extension of Latin limited to the Italian peninsula. As Rome colonized Spain and Gaul, the district west of the Black Sea, northern Africa, the islands of the Mediterranean, and even Britain, Latin spread into all these regions until its limits became practically co-terminous with those of the Roman Empire. And in the greater part of this area it has remained the language, though in altered form, to the present day.

The various languages that represent the survival of Latin in the different parts of the Roman Empire are known as the Romance or Romanic languages. Some of them have since spread into other territory, particularly in the New World. The most extensive of the Romance languages are French, Spanish, Portuguese, and Italian. French is primarily the language of northern France, although it is the language of literature and education throughout the country. In the Middle Ages it was divided into a number of dialects, especially Norman, Picard, Burgundian, and that of the Ile-de-France. But with the establishment of the Capetians as kings of France and the rise of Paris as the national capital, the dialect of Paris or the Ile-de-France gradually won recognition as the official and literary language. Since the thirteenth century the Paris dialect has been standard French. In the southern half of France the language differed markedly from that of the north. From the word for *yes* the language of the north was called the *langue d'oïl*, that of the south the *langue d'oc*. Nowadays the latter is more commonly known as Provençal. In the twelfth and thirteenth centuries it was the language of an innovative literature, the lyrics of the troubadours, but it has since yielded to the political and social prestige of French. A patriotic effort at the close of the nineteenth century, corresponding to similar movements on behalf of Irish, Norwegian, and other submerged languages, failed to revive the language as a medium of literature, and Provençal is today merely the regional speech of southern France. In the Iberian peninsula Spanish and Portuguese, because of their proximity and the similar conditions under which they have developed, have remained fairly close to each other. In spite of certain differences of vocabulary and inflection and considerable differences in the sounds of the spoken language, a Spaniard can easily read Portuguese. The use of Spanish and Portuguese in Central and South America and in Mexico has already been referred to. Italian has had the longest continuous history in its original location of any of the Romance languages, because it is

nothing more than the Latin language as this language has continued to be spoken in the streets of Rome from the founding of the city. It is particularly important as the language of Dante, Petrarch, and Boccaccio, and the vernacular language in which the cultural achievements of the Renaissance first found expression. Romanian is the easternmost of the Romance languages, representing the continued influence of Roman legions in ancient Dacia. In addition to these six languages, about a dozen Romance languages are spoken by smaller populations. Other languages on the Iberian peninsula are Catalan, a language of the northeast but also found in Corsica, and one with an extensive literature, and Galician in the northwest, similar to both Spanish and Portuguese, having features of each, just as Catalan shares features of Provençal and Spanish. The Rhaeto-Romanic group in southeastern Switzerland and adjacent parts of the Tyrol includes Romansch and dialects in which Germanic elements are especially prominent. Walloon is a dialect of French spoken in southern Belgium.

The Romance languages, while representing a continuous evolution from Latin, are not derived from the Classical Latin of Cicero and Virgil. Classical Latin was a literary language with an elaborate and somewhat artificial grammar. The spoken language of the masses, Vulgar Latin (from Latin *vulgus*, the common people), differed from it not only in being simpler in inflection and syntax but also to a certain extent divergent in vocabulary. In Classical Latin the word for horse was *equus*, but the colloquial word was *caballus*. It is from the colloquial word that French *cheval*, Provençal *caval*, Spanish *caballo*, Italian *cavallo*, etc., are derived. In like manner where one wrote *pugna* (fight), *urbs* (city), *os* (mouth), the popular, spoken word was *battualia* (Fr. *bataille*), *villa* (Fr. *ville*), *bucca* (Fr. *bouche*). So *verberare*=*battuere* (Fr. *battre*), *osculari*=*basiare* (Fr. *baiser*), *ignis*=*focus* (Fr. *feu*), *ludus*=*jocus* (Fr. *jeu*). It was naturally the Vulgar Latin of the marketplace and camp that was carried into the different Roman provinces. That this Vulgar Latin developed differently in the different parts of Europe in which it was introduced is explained by a number of factors. In the first place, as Gustav Gröber observed, Vulgar Latin, like all language, was constantly changing, and because the Roman provinces were established at different times and the language carried into them would be more or less the language then spoken in the streets of Rome, there would be initial differences in the Vulgar Latin of the different colonies.<sup>5</sup> These differences would be increased by separation and the influence of the languages spoken by the native populations as they adopted the new language. The Belgae and the Celts in Gaul, described by Caesar, differed from the Iberians in Spain. Each of these peoples undoubtedly modified Latin in accordance with the grammars of their own languages, as normally happens when languages come into contact.<sup>6</sup> It is not difficult to understand the divergence of the Romance languages, and it is not the least interesting feature of the Romance group that we can observe here in historical time the formation of a number of

<sup>5</sup> The Roman colonies were established in Corsica and Sardinia in 231 B.C. Spain became a province in 197 B.C., Provence in 121 B.C., Dacia in A.D. 107.

<sup>6</sup> The principle can be illustrated by a modern instance. The Portuguese spoken in Brazil has no sound like the English *th*. Brazilians who learn English consequently have difficulty in acquiring this sound and tend to substitute some other sound of their own language for it. They say *dis* for *this* and *I sink so* for *I think so*. If we could imagine English introduced into Brazil as Latin was introduced into Gaul or Spain, we could only suppose that the 165 million people of Brazil would universally make such a substitution, and the *th* would disappear in Brazilian English.

distinct languages from a single parent speech. Such a process of progressive differentiation has brought about, over a greater area and a longer period of time, the differences among the languages of the whole Indo-European family.

#### **24. *Balto-Slavic.***

The Balto-Slavic branch covers a vast area in the eastern part of Europe. It falls into two groups, the Baltic and the Slavic, which, in spite of differences, have sufficient features in common to justify their being classed together.

There are three Baltic languages: Prussian, Latvian, and Lithuanian. Prussian is now extinct, having been displaced by German since the seventeenth century. Latvian is the language of about two million people in Latvia. Lithuanian is spoken by about three million people in the Baltic state of Lithuania. It is important among the Indo-European languages because of its conservatism. It is sometimes said that a Lithuanian peasant can understand certain simple phrases in Sanskrit. Although the statement implies too much, Lithuanian preserves some very old features that have disappeared from practically all the other languages of the family.

The similarities among the various languages of the Slavic group indicate that as late as the seventh or eighth century of our era they were practically identical or at least were united by frequent intercourse. At the present time they fall into three divisions: East Slavic, West Slavic, and South Slavic. The first two still cover contiguous areas, but the South Slavs, in the Balkan peninsula, are now separated from the rest by a belt of non-Slavic people, the Hungarians and the Romanians.

The earliest form in which we possess a Slavic language is a part of the Bible and certain liturgical texts translated by the missionaries Cyril and Methodius in the ninth century. The language of these texts is South Slavic, but it probably approximates with considerable closeness the common Slavic from which all the Slavic languages have come. It is known as Old Church Slavonic or Old Bulgarian and continued to be used throughout the Middle Ages and indeed well into modern times as the ecclesiastical language of the Orthodox Church.

East Slavic includes three varieties. Chief of these is Russian, the language of about 175 million people. It is found throughout the north, east, and central parts of Russia, was formerly the court language, and is still the official and literary language of the country. Belorussian (White Russian) is the language of about 9 million people in Belarus and adjacent parts of Poland. Ukrainian is spoken by about 50 million people in Ukraine. Nationalist ambitions have led the Ukrainians to stress the difference between their language and Russian, a difference that, from the point of view of mutual intelligibility, causes some difficulty with the spoken language. Russian, Belorussian, and Ukrainian constitute the largest group of Slavic languages.

West Slavic includes four languages. Of these Polish is the largest, spoken by about 36 million people within Poland, by about 5 million in the United States, and by smaller numbers in the former Soviet Union and other countries. Next in size are the mutually intelligible languages of the Czech Republic and Slovakia: Czech, spoken by about 10

million people, and Slovak, spoken by 5 million. The fourth language, Sorbian, is spoken by only 100,000 people in Germany, in a district a little northeast of Dresden.

South Slavic includes Bulgarian, Serbo-Croatian, Slovene, and modern Macedonian, not to be confused with ancient Macedonian, an Indo-European language of uncertain affinity. Bulgarian was spoken in the eastern part of the Balkan peninsula when the region was overrun by a non-Slavic people. But the conqueror was absorbed by the conquered and adopted their language. Modern Bulgarian has borrowed extensively from Turkish for the language of everyday use, while the literary language is much closer to Russian. The history of Yugoslavia and the fortunes of its languages illustrate tragically the quip that "a language is a dialect with an army and a navy." Serbo-Croatian represents the union of Serbian, formerly the language of Serbia, and Croatian, spoken before World War I by the Croats of Bosnia and Croatia. The two languages are practically identical but use different alphabets. With the breakup of Yugoslavia we can expect references to Serbo-Croatian to be replaced by references separately to Serbian and Croatian. Slovene is spoken by about 1.5 million people in Slovenia, at the head of the Adriatic.

The Slavic languages constitute a more homogeneous group than the languages of some of the other branches. They have diverged less from the common type than those, for example, of the Germanic branch and in a number of respects preserve a rather archaic aspect. Moreover the people speaking the Baltic languages must have lived for many centuries in fairly close contact with the Slavs after the two had separated from the parent Indo-European community.

## 25. *Germanic.*

The common form that the languages of the Germanic branch had before they became differentiated is known as Germanic or Proto-Germanic. It antedates the earliest written records of the family and is reconstructed by philologists in the same way as is the parent Indo-European. The languages descended from it fall into three groups: East Germanic, North Germanic, and West Germanic.

The principal language of East Germanic is Gothic. By the third century the Goths had spread from the Vistula to the shore of the Black Sea and in the following century they were Christianized by a missionary named Ulfilas (311–383), whose father seems to have been a Goth and his mother a Greek (Cappadocian). Our knowledge of Gothic is almost wholly due to a translation of the Gospels and other parts of the New Testament made by Ulfilas. Except for some runic inscriptions in Scandinavia it is the earliest record of a Germanic language we possess. For a time the Goths played a prominent part in European history, including in their extensive conquests both Italy, by the Ostrogoths, and Spain, by the Visigoths. In these districts, however, their language soon gave place to Latin, and even elsewhere it seems not to have maintained a very tenacious existence. Gothic survived longest in the Crimea, where vestiges of it were noted down in the sixteenth century. To the East Germanic branch belonged also Burgundian and Vandalic, but our knowledge of these languages is confined to a small number of proper names.

North Germanic is found in Scandinavia, Denmark, Iceland, and the Faroe Islands. Runic inscriptions from the third century preserve our earliest traces of the language. In its earlier form the common Scandinavian language is conveniently spoken of as Old

Norse. From about the eleventh century on, dialectal differences become noticeable. The Scandinavian languages fall into two groups: an eastern group including Swedish and Danish, and a western group including Norwegian and Icelandic. Norwegian ceased to be a literary language in the fourteenth century, and Danish (with Norwegian elements) is one written language of Norway.<sup>7</sup> Of the early Scandinavian languages Old Icelandic is by far the most literary. Iceland was colonized by settlers from Norway about A.D. 874 and early preserved a body of heroic literature unsurpassed among the Germanic peoples. Among the more important monuments are the Elder or Poetic Edda, a collection of poems that probably date from the tenth or eleventh century, the Younger or Prose Edda compiled by Snorri Sturluson (1178–1241), and about forty sagas, or prose epics, in which the lives and exploits of various traditional figures are related.

West Germanic is of chief interest to us as the group to which English belongs. It is divided into two branches, High and Low German, by the operation of a Second (or High German) Sound-Shift analogous to that described above as Grimm's Law. This change, by which West Germanic *p, t, k, d*, etc. were changed into other sounds, occurred about A.D. 600 in the southern or mountainous part of the Germanic area but did not take place in the lowlands to the north. Accordingly in early times we distinguish as Low German tongues Old Saxon, Old Low Franconian, Old Frisian, and Old English. The last two are closely related and constitute a special or Anglo-Frisian subgroup.<sup>8</sup> Old Saxon has become the essential constituent of modern Low German or Plattdeutsch; Old Low Franconian, with some mixture of Frisian and Saxon elements, is the basis of modern Dutch in the Netherlands and Flemish in northern Belgium; and Frisian survives in the Netherland province of Friesland, in a small part of Schleswig, in the islands along the coast, and other places. High German comprises a number of dialects (Middle, Rhenish, and East Franconian, Bavarian, Alemannic, etc.). It is divided chronologically into Old High German (before 1100), Middle High German (1100–1500), and Modern High German (since 1500). High German, especially as spoken in the midlands and used in the imperial chancery, was popularized by Luther's translation of the Bible (1522–1532) and since the sixteenth century has gradually established itself as the literary language of Germany.

<sup>7</sup> The union of Norway and Denmark for 400 years made Danish the language of culture. The latter half of the nineteenth century witnessed the beginning of a movement to make the Norwegian dialects into a national language (*Landsmål*), but this regeneration of the national speech has not succeeded in displacing Dano-Norwegian (*Bokmål* 'book language,' formerly *Riksmål* 'national language') as the dominant language. An amalgam of rural speech in normalized form (*Nynorsk* 'New Norwegian') is trying to compete in literature, the theater, etc. and is further complicating the linguistic problem. The whole conflict is treated historically in Einar Haugen, *Language Conflict and Language Planning: The Case of Modern Norwegian* (Cambridge, MA, 1966).

<sup>8</sup> The West Germanic languages may be classified in different ways according to the features selected as the basis of division. Thus it is very common to divide them into an Anglo-Frisian group and a German group that includes Old Saxon. The division given in the text is none the less basic and is here retained for the sake of simplicity.

## 26. Celtic.

The Celtic languages formed at one time one of the most extensive groups in the Indo-European family. At the beginning of the Christian era the Celts were found in Gaul and Spain, in Great Britain, in western Germany, and northern Italy—indeed, they covered the greater part of Western Europe. A few centuries earlier their triumphal progress had extended even into Greece and Asia Minor. The steady retreat of Celtic before advancing Italic and Germanic tongues is one of the surprising phenomena of history. Today Celtic languages are found only in the far corners of France and the British Isles; in the areas in which they were once dominant they have left but little trace of their presence.

The language of the Celts in Gaul who were conquered by Caesar is known as Gallic. Since it was early replaced by Latin we know next to nothing about it. A few inscriptions, some proper names (cf. *Orgetorix*), one fragmentary text, and a small number of words preserved in modern French are all that survive. With respect to the Celtic languages in Britain we are better off, although the many contradictory theories of Celticists<sup>9</sup> make it impossible to say with any confidence how the Celts came to England. The older view, which is now questioned, holds that the first to come were Goidelic or Gaelic Celts. Some of these may have been driven to Ireland by the later invaders and from there may have spread into Scotland and the Isle of Man. Their language is represented in modern times by Irish, Scottish Gaelic, and Manx. The later Brythonic Celts, after occupying for some centuries what is now England, were in turn driven westward by Germanic invaders in the fifth century. Some of the fugitives crossed over into Brittany. The modern representatives of the Brythonic division are Welsh, Cornish, and Breton. The remnants of this one-time extensive group of languages are everywhere losing ground at the present day. Spoken by minorities in France and the British Isles, these languages are faced with the competition of two languages of wider communication, and some seem destined not to survive this competition. Cornish became extinct in the eighteenth century, and Manx, once spoken by all the native inhabitants of the Isle of Man, has died out since World War II. In Scotland Gaelic is found only in the Highlands. It is spoken by 75,000 people, of whom fewer than 5,000 do not know English as well. Welsh is still spoken by about one-quarter of the people, but the spread of English among them is indicated by the fact that the number of those who speak only Welsh had dropped from 30 percent in 1891 to 2 percent in 1950 and is still slowly decreasing. Irish is spoken by about 500,000 people, most of whom are bilingual. Whether nationalist sentiment will succeed in arresting the declining trend that has been observable here as in the other Celtic territory remains to be seen. If language planning efforts fail, it seems inevitable that eventually another branch of the Indo-European family of languages will disappear.

<sup>9</sup> For a summary of these theories, see T. Rice Holmes, *Ancient Britain and the Invasions of Julius Caesar* (2nd ed., Oxford, 1936), pp. 444–58. See also Myles Dillon and Nora K. Chadwick, *The Celtic Realms* (2nd ed., London, 1972), chaps. 1, 2, and 9.

### 27. *Twentieth-century Discoveries.*

Besides the nine branches described above, discoveries in the twentieth century added two new groups to the family: Hittite and Tocharian. Until recently the Hittites have been known to us chiefly from references in the Old Testament. Abraham bought the burial place for Sarah from a Hittite (Gen. 23), and Bathsheba, whom David coveted, was the wife of Uriah the Hittite (2 Sam. 11). Their language was preserved only in a few uninterpreted documents. In 1907, however, an archaeological expedition uncovered the site of the Hittite capital in Asia Minor, at Boghazköi, about ninety miles east of Ankara, containing the royal archives of nearly 10,000 clay tablets. The texts were written in Babylonian cuneiform characters, and some were in the Babylonian language (Akkadian), the diplomatic language of the day. Most of the tablets, however, were in an unknown language. Although a number of different languages seem to have been spoken in the Hittite area, nine-tenths of the tablets are in the principal language of the kingdom. It is apparently not the original language of the district, but it has been given the name Hittite. The sudden opening up of so extensive a collection of texts has permitted considerable progress to be made in the study of this language. The most remarkable effect upon Indo-European studies has been the confirmation of a hypothesis made by Ferdinand de Saussure in 1879. On the basis of internal evidence Saussure had proposed for Indo-European certain sound patterns that did not occur in any of the languages then known. Twenty years after the discovery of the Hittite tablets it could be demonstrated that Saussure's phonological units, which had become known as "laryngeals," occurred in Hittite much as he had proposed for Indo-European. The number and phonetic features of laryngeals in Indo-European are still a matter of debate, but there is general agreement that at least one laryngeal must be posited for the parent language.<sup>10</sup> In the reconstruction of Indo-European syntax, Hittite has provided invaluable evidence. A strong argument can now be made that Hittite and the oldest hymns of the *Rig-veda* represent the Object-Verb structure of Indo-European, which by the time of Classical Greek and Latin had been largely modified to a Verb-Object pattern.<sup>11</sup> A large proportion of the Hittite vocabulary comes from a non-Indo-European source. The blending with foreign elements appears to be as great as in Albanian. By some scholars Hittite is treated as coordinate with Indo-European, and the period of joint existence is designated Indo-Hittite. It is sufficient, however, to think of Hittite as having separated from the Indo-European community some centuries (perhaps 500 years or more) before any of the other groups began to detach themselves.

<sup>10</sup> See Winfred P. Lehmann, *Proto-Indo-European Phonology* (Austin, TX, 1952), pp. 22–35, 85–114, *et passim*, and the essays in *Evidence for Laryngeals*, ed. Werner Winter (The Hague, 1965).

<sup>11</sup> See Winfred P. Lehmann, *Proto-Indo-European Syntax* (Austin, TX, 1974), pp. 34–35, 238–51, *et passim*. See also Calvert Watkins, "Preliminaries to the Reconstruction of Indo-European Sentence Structure," in *Proceedings of the Ninth International Congress of Linguists*, ed. Horace G. Lunt (The Hague, 1964).



Tocharian is the name given to the language in which some fragmentary texts were discovered in the early part of the present century in western China (Xinjiang Uygur). Some of them contain the name of a king who according to Chinese evidence reigned in the early part of the seventh century of our era. To the philologist the discovery is of some importance because the language belongs with the Hellenic, Italic, Germanic, and Celtic groups as a *centum* language rather than with the eastern or *satem* groups (see page 39), with which we should expect it to be most closely related.<sup>12</sup>

### 28. *The Home of the Indo-Europeans.*

It is obvious that if the languages just described represent the progressive differentiation of an original speech, this speech, which we may for convenience call the Indo-European language, must have been spoken by a population somewhere at some time. What can be learned of these people and their early location?

Concerning their physical character, practically nothing can be discerned. Continuity in language and culture does not imply biological descent. It is not an uncommon phenomenon in history for a people to give up their own language and adopt another. Sometimes they adopt the language of their conquerors, or of those whom they have conquered, or that of a people with whom they have simply become merged in a common territory. The Indo-European languages are spoken today in many cultures that until recently have had completely unrelated heritages. And to judge by the large variety of people who have spoken these languages from early times, it is quite possible that the people of the original Indo-European community already represented a wide ethnic diversity. Neither can we form any very definite idea of the date at which this people lived as a single, more or less coherent community. The period of their common life must have extended over a considerable stretch of time. It is customary to place the end of their common existence somewhere between 3500 and 2500 B.C.

With respect to the location of this community at a time shortly before their dispersal, we have at least a basis for inference. To begin with, we may assume that the original home was in that part of the world in which the languages of the family are chiefly to be found today, and we may omit from consideration Africa, Australia, and the American continents because we know that the extension of Indo-European languages in these areas has occurred in historical times. History and its related sciences, anthropology and archaeology, enable us also to eliminate certain other regions, such as the British Isles and the peninsulas of Southern Europe. Early literary tradition occasionally preserves traces of a people at a former stage in their history. The earliest books of the Hindus, for example, the Vedas, show an acquaintance with the Indus but not with the Ganges, indicating that the Indo-Europeans entered India from the northwest. In general, we may

<sup>12</sup> It has been suggested that the Tocharians, perhaps originally from the Balkans, formed part of the extensive migration from Europe into eastern Asia in the eighth and ninth centuries B.C., a migration that resulted in the overthrow of the Chou dynasty in China in 771 B.C. On the basis of archaeological and other evidence it is believed that Illyrians, Thracians, Phrygians, and Germanic peoples (especially Scandinavians) were among those that took part in the movement. See Robert Heine-Geldern, "Das Tocharerproblem und die Pontische Wanderung," *Saeculum*, 2 (1951), 225–55.

be fairly sure that the only regions in which it is reasonable to seek the original home of the Indo-European family are the mainland of Europe and the western part of Asia. Prior to the middle of the nineteenth century it was customary to assume an Asiatic home for the family. Such an opinion was the natural result of biblical tradition that placed the Garden of Eden in the neighborhood of Mesopotamia. This notion seemed to find confirmation in the discovery that Sanskrit, situated in Asia, not only was an Indo-European language but was also in many ways closest in form to the parent speech. Finally, Europe had seen the invasion of the Hun and the Turk and other Asiatic peoples, and it seemed natural to think of the movements of population as generally westward. But it was eventually recognized that such considerations formed a very slender basis for valid conclusions. It was observed that by far the larger part of the languages of this family have been in Europe from the earliest times to which our knowledge extends. Was it not more natural to suppose that the few representatives of the family in Asia should have made their way eastward than that nearly all the languages of Europe should have been the result of Asiatic incursions? In the course of the nineteenth century the comparative study of the Indo-European languages brought to light a number of facts that seemed to support such a supposition.

The evidence of language itself furnishes the most satisfactory criterion yet discovered on which to base a solution of the problem. It is obvious that those elements of the vocabulary which all or a considerable number of the branches of the family have in common must have formed a part of the original word-stock. In fact, a word common to two or three branches of the family, if the branches have not been in such proximity to each other as to suggest mutual influence, is likely to have been in the original language. Now the Indo-European languages generally have a common word for *winter* and for *snow*. It is likely that the original home of the family was in a climate that at certain seasons at least was fairly cold. On the other hand it is not certain that there was a common word for the sea. Instead, some branches of the family, when in the course of their wanderings they came into contact with the sea, had to develop their own words for the new conception. The original community was apparently an inland one, although not necessarily situated at a great distance from the coast. Still more instructive is the evidence of the fauna and flora known to the Indo-European community. As Harold H. Bender, whose *Home of the Indo-Europeans* is an admirable survey of the problem, puts it, "There are no anciently common Indo-European words for elephant, rhinoceros, camel, lion, tiger, monkey, crocodile, parrot, rice, banyan, bamboo, palm, but there are common words, more or less widely spread over Indo-European territory, for snow and freezing cold, for oak, beech, pine, birch, willow, bear, wolf, otter, beaver, polecat, marten, weasel, deer, rabbit, mouse, horse, ox, sheep, goat, pig, dog, eagle, hawk, owl, jay, wild goose, wild duck, partridge or pheasant, snake, tortoise, crab, ant, bee, etc." The force of this list is not in the individual items but in the cumulative effect of the two groups. Two words in it, however, have been the object of special consideration, *beech* and *bee*. A word corresponding to English *beech* is found in a number of Indo-European languages and was undoubtedly part of the parent vocabulary. The common beech (*Fagus silvatica* Linnaeus) is of relatively limited range: It is practically confined to

central Europe and is not native east of Poland and Ukraine.<sup>13</sup> The testimony of this word as to the original home of the Indo-European family would be persuasive if we could be sure that in the parent speech the word always designated what we know as the beech tree. But although this is its meaning in Latin and the Germanic languages, the word means “oak” in Greek, “elder” and “elm” in other languages.<sup>14</sup> In like manner the familiarity of the Indo-European community with the bee is evident from a common

word for honey (Latin *mel*, Greek μέλι, English *mildew*, etc.) and a common word for an intoxicating drink made from honey, called *mead* in Old English. The honeybee is indigenous over almost all Europe but is not found in those parts of Asia that have ever been considered as possible locations of the Indo-European community. From evidence such as this a European home for the Indo-European family has come to be considered more probable.

One other linguistic consideration that figured prominently in past discussions is worth citing because of its intrinsic interest. The branches of the Indo-European family fall into two well-defined groups according to the modification that certain consonants of the parent speech underwent in each. They are known as the *centum* and *satem* groups from the words for hundred in Latin and Avestan, respectively. The *centum* group includes the Hellenic, Italic, Germanic, and Celtic branches. To the *satem* group belong Indian, Iranian, Armenian, Balto-Slavic, and Albanian. A line running roughly from Scandinavia to Greece separates the two and suggests a line of cleavage from which dispersion eastward and westward might have taken place. Although this division has been cited as supporting a homeland in central Europe—in the general area of the present Baltic states—linguists have been unable to find additional characteristics that would have been associated with such a fundamental split. With increasing knowledge about the classification of dialects and the spread of linguistic change, it has become more plausible to view the *centum-satum* division as the result of a sound change in the eastern section of the Indo-European speech community that spread through Indo-Iranian, Armenian, Slavic, and into Baltic.<sup>15</sup> It is still useful to speak of *centum* and *satem* languages, but the classification itself does not permit deductions about early migrations.<sup>16</sup>

From the nature of the case, the original home of the Indo-European languages is still a matter of much uncertainty, and many divergent views are

<sup>13</sup> This is the area of the “beech line,” which earlier arguments drew while ignoring that the eastern beech (*Fagus orientalis*) differs very little from the common beech and constitutes about one-quarter of the tree population of the Caucasus east to the Caspian Sea. See Paul Friedrich, *Proto-Indo-European Trees* (Chicago, 1970), pp. 112–13.

<sup>14</sup> The validity of the evidence drawn from the beech tree receives strong support from Wilhelm Wissmann, *Der Name der Buche* (Berlin, 1952; *Deutsche Akad. der Wissenschaften zu Berlin, Vorträge und Schriften*, Heft 50). Problems in the etymologies of the various forms are treated by George S. Lane, “The Beech Argument: A Re-evaluation of the Linguistic Evidence,” *Zeitschrift für vergleichende Sprachforschung*, 81 (1967), 197–212.

<sup>15</sup> See Winfred P. Lehmann, *Historical Linguistics* (3rd ed., New York, 1992), pp. 27–28.

<sup>16</sup> Accordingly Tocharian, as a *centum* language in *satem* territory, is no longer regarded as the anomalous problem that it was in earlier studies. See George S. Lane, “Tocharian: Indo-European and Non-Indo-European Relationships,” in *Indo-European and Indo-Europeans*, p. 79.

held by scholars. During the past thirty years impressive new discoveries have come from archaeological excavations in Russia and Ukraine. Graves in the steppe area between the River Don and the Urals have yielded evidence of an Indo-European “Kurgan” culture that existed north of the Caspian Sea from the fifth through the third millennia B.C. It is especially interesting to note the characteristic flora and fauna of the area during that period, as described by Marija Gimbutas: “The Kurgan people lived in the steppe and forest-steppe zone, but in the fifth and fourth millennia the climate was warmer and damper than at present and what is now the steppe zone was more forested. Mixed forests, including oak, birch, fir, beech, elder, elm, ash, aspen, apple, cherry and willow, extended along rivers and rivulets in which such forest animals as aurochs, elk, boar, wild horse, wolf, fox, beaver, squirrel, badger, hare, and roe deer were present.”<sup>17</sup> Gimbutas, who first proposed the name of the culture, believes that the Kurgan people were the original Indo-Europeans, an opinion shared by many archaeologists and linguists. Some scholars accept the descriptions by American and Soviet archaeologists of the early periods of Kurgan culture but propose different directions of migration.<sup>18</sup> Although the Indo-European homeland may prove impossible to locate precisely, one can expect new evidence and new interpretations of old evidence from both linguistics and archaeology.<sup>19</sup> At present it is sufficient to observe that most of the proposed locations can be accommodated in the district east of the Germanic area stretching from central Europe to the steppes of southern Russia.

The civilization that had been attained by the people of this community at the time of their dispersal was approximately that known as neolithic. Copper was, however, already in use to a limited extent. The Indo-Europeans were no longer purely nomadic but had settled homes with houses and some agriculture. Here the evidence drawn from the vocabulary must be used with caution. We must be careful not to attribute to words their modern significance. The existence of a word for plow does not necessarily indicate anything more than the most primitive kind of implement. The Indo-Europeans raised grain and wool and had learned to spin and weave. They kept cattle and had for food not only the products of their own labor but such fruit and game as have always served the needs of primitive communities. They recognized the existence of a soul, believed in gods, and had developed certain ethical ideas. Without assuming complete uniformity of achievement throughout the area covered by this linguistic group, we may believe that the cultural development attained by the Indo-European was already considerable.

<sup>17</sup> “Proto-Indo-European Culture: The Kurgan Culture during the Fifth, Fourth, and Third Millennia B.C.,” in *Indo-European and Indo-Europeans*, pp. 159–60.

<sup>18</sup> It has been argued that the traditional linguistic evidence in favor of the north European plain is sufficient to assume that the Kurgans migrated east at an early date. See Ward H. Goodenough, “The Evolution of Pastoralism and Indo-European Origins,” in *Indo-European and Indo-Europeans*, pp. 253–65.

<sup>19</sup> A significant example is Colin Renfrew’s theory that reverses the direction of influence between the steppes and western Europe and sees the Indo-European culture spreading through the peaceful diffusion of agriculture rather than through conquest. See his *Archaeology and Language: The Puzzle of Indo-European Origins* (Cambridge, UK, 1988).

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