

VII

LANGUAGE AS A HISTORICAL PRODUCT: DRIFT

EVERY ONE knows that language is variable. Two individuals of the same generation and locality, speaking precisely the same dialect and moving in the same social circles, are never absolutely at one in their speech habits. A minute investigation of the speech of each individual would reveal countless differences of detail—in choice of words, in sentence structure, in the relative frequency with which particular forms or combinations of words are used, in the pronunciation of particular vowels and consonants and of combinations of vowels and consonants, in all those features, such as speed, stress, and tone, that give life to spoken language. In a sense they speak slightly divergent dialects of the same language rather than identically the same language.

There is an important difference, however, between individual and dialectic variations. If we take two closely related dialects, say English as spoken by the "middle classes" of London and English as spoken by the average New Yorker, we observe that, however much the individual speakers in each city differ from each other, the body of Londoners forms a compact, relatively unified group in contrast to the body of New Yorkers. The individual variations are swamped in or absorbed by certain major agreements—say of pronunciation and vocabulary—which stand out very strongly

when the language of the group as a whole is contrasted with that of the other group. This means that there is something like an ideal linguistic entity dominating the speech habits of the members of each group, that the sense of almost unlimited freedom which each individual feels in the use of his language is held in leash by a tacitly directing norm. One individual plays on the norm in a way peculiar to himself, the next individual is nearer the dead average in that particular respect in which the first speaker most characteristically departs from it but in turn diverges from the average in a way peculiar to himself, and so on. What keeps the individual's variations from rising to dialectic importance is not merely the fact that they are in any event of small moment—there are well-marked dialectic variations that are of no greater magnitude than individual variations within a dialect—it is chiefly that they are silently “corrected” or canceled by the consensus of usage. If all the speakers of a given dialect were arranged in order in accordance with the degree of their conformity to average usage, there is little doubt that they would constitute a very finely intergrading series clustered about a well-defined center or norm. The differences between any two neighboring speakers of the series¹ would be negligible for any but the most microscopic linguistic research. The differences between the outermost members of the series are sure to be considerable, in all likelihood considerable enough to measure up to a true dialectic variation. What prevents us from saying that these untypical individuals speak distinct dialects is that their peculiarities, as a unified whole, are

¹ In so far as they do not fall out of the normal speech group by reason of a marked speech defect or because they are isolated foreigners that have acquired the language late in life.

not referable to another norm than the norm of their own series.

If the speech of any member of the series could actually be made to fit into another dialect series,² we should have no true barriers between dialects (and languages) at all. We should merely have a continuous series of individual variations extending over the whole range of a historically unified linguistic area, and the cutting up of this large area (in some cases embracing parts of several continents) into distinct dialects and languages would be an essentially arbitrary proceeding with no warrant save that of practical convenience. But such a conception of the nature of dialectic variation does not correspond to the facts as we know them. Isolated individuals may be found who speak a compromise between two dialects of a language, and if their number and importance increases they may even end by creating a new dialectic norm of their own, a dialect in which the extreme peculiarities of the parent dialects are ironed out. In course of time the compromise dialect may absorb the parents, though more frequently these will tend to linger indefinitely as marginal forms of the enlarged dialect area. But such phenomena—and they are common enough in the history of language—are evidently quite secondary. They are closely linked with such social developments as the rise of nationality, the formation of literatures that aim to have more than a local appeal, the movement of rural populations into the cities, and all those other tendencies that break up the intense localism that unsophisticated man has always found natural.

² Observe that we are speaking of an individual's speech as a whole. It is not a question of isolating some particular peculiarity of pronunciation or usage and noting its resemblance to or identity with a feature in another dialect.

The explanation of primary dialectic differences is still to seek. It is evidently not enough to say that if a dialect or language is spoken in two distinct localities or by two distinct social strata it naturally takes on distinctive forms, which in time come to be divergent enough to deserve the name of dialects. This is certainly true as far as it goes. Dialects do belong, in the first instance, to very definitely circumscribed social groups, homogeneous enough to secure the common feeling and purpose needed to create a norm. But the embarrassing question immediately arises, If all the individual variations within a dialect are being constantly leveled out to the dialectic norm, if there is no appreciable tendency for the individual's peculiarities to initiate a dialectic schism, why should we have dialectic variations at all? Ought not the norm, wherever and whenever threatened, automatically to reassert itself? Ought not the individual variations of each locality, even in the absence of intercourse between them, to cancel out to the same accepted speech average?

If individual variations "on a flat" were the only kind of variability in language, I believe we should be at a loss to explain why and how dialects arise, why it is that a linguistic prototype gradually breaks up into a number of mutually unintelligible languages. But language is not merely something that is spread out in space, as it were—a series of reflections in individual minds of one and the same timeless picture. Language moves down time in a current of its own making. It has a drift. If there were no breaking up of a language into dialects, if each language continued as a firm, self-contained unity, it would still be constantly moving away from any assignable norm, developing new features unceasingly and gradually transforming itself into

a language so different from its starting point as to be in effect a new language. Now dialects arise not because of the mere fact of individual variation but because two or more groups of individuals have become sufficiently disconnected to drift apart, or independently, instead of together. So long as they keep strictly together, no amount of individual variation would lead to the formation of dialects. In practice, of course, no language can be spread over a vast territory or even over a considerable area without showing dialectic variations, for it is impossible to keep a large population from segregating itself into local groups, the language of each of which tends to drift independently. Under cultural conditions such as apparently prevail to-day, conditions that fight localism at every turn, the tendency to dialectic cleavage is being constantly counteracted and in part "corrected" by the uniformizing factors already referred to. Yet even in so young a country as America the dialectic differences are not inconsiderable.

Under primitive conditions the political groups are small, the tendency to localism exceedingly strong. It is natural, therefore, that the languages of primitive folk or of non-urban populations in general are differentiated into a great number of dialects. There are parts of the globe where almost every village has its own dialect. The life of the geographically limited community is narrow and intense; its speech is correspondingly peculiar to itself. It is exceedingly doubtful if a language will ever be spoken over a wide area without multiplying itself dialectically. No sooner are the old dialects ironed out by compromises or ousted by the spread and influence of the one dialect which is culturally predominant when a new crop of dialects arises

to undo the leveling work of the past. This is precisely what happened in Greece, for instance. In classical antiquity there were spoken a large number of local dialects, several of which are represented in the literature. As the cultural supremacy of Athens grew, its dialect, the Attic, spread at the expense of the rest, until, in the so-called Hellenistic period following the Macedonian conquest, the Attic dialect, in the vulgarized form known as the "Koine," became the standard speech of all Greece. But this linguistic uniformity³ did not long continue. During the two millennia that separate the Greek of to-day from its classical prototype the Koine gradually split up into a number of dialects. Now Greece is as richly diversified in speech as in the time of Homer, though the present local dialects, aside from those of Attica itself, are not the lineal descendants of the old dialects of pre-Alexandrian days.⁴ The experience of Greece is not exceptional. Old dialects are being continually wiped out only to make room for new ones. Languages can change at so many points of phonetics, morphology, and vocabulary that it is not surprising that once the linguistic community is broken it should slip off in different directions. It would be too much to expect a locally diversified language to develop along strictly parallel lines. If once the speech of a locality has begun to drift on its own account, it is practically certain to move further and further away from its linguistic fellows. Fail-

³ It is doubtful if we have the right to speak of linguistic uniformity even during the predominance of the Koine. It is hardly conceivable that when the various groups of non-Attic Greeks took on the Koine they did not at once tinge it with dialectic peculiarities induced by their previous speech habits.

⁴ The Zaëonic dialect of Lacedaemon is the sole exception. It is not derived from the Koine, but stems directly from the Doric dialect of Sparta.

ing the retarding effect of dialectic interinfluences, which I have already touched upon, a group of dialects is bound to diverge on the whole, each from all of the others.

In course of time each dialect itself splits up into sub-dialects, which gradually take on the dignity of dialects proper while the primary dialects develop into mutually unintelligible languages. And so the budding process continues, until the divergences become so great that none but a linguistic student, armed with his documentary evidence and with his comparative or reconstructive method, would infer that the languages in question were genealogically related, represented independent lines of development, in other words, from a remote and common starting point. Yet it is as certain as any historical fact can be that languages so little resembling each other as Modern Irish, English, Italian, Greek, Russian, Armenian, Persian, and Bengali are but end-points in the present of drifts that converge to a meeting-point in the dim past. There is naturally no reason to believe that this earliest "Indo-European" (or "Aryan") prototype which we can in part reconstruct, in part but dimly guess at, is itself other than a single "dialect" of a group that has either become largely extinct or is now further represented by languages too divergent for us, with our limited means, to recognize as clear kin.⁵

All languages that are known to be genetically related, i.e., to be divergent forms of a single prototype, may be considered as constituting a "linguistic stock." There is nothing final about a linguistic stock. When

⁵ Though indications are not lacking of what these remoter kin of the Indo-European languages may be. This is disputed ground, however, and hardly fit subject for a purely general study of speech.

we set it up, we merely say, in effect, that thus far we can go and no farther. At any point in the progress of our researches an unexpected ray of light may reveal the "stock" as but a "dialect" of a larger group. The terms dialect, language, branch, stock—it goes without saying—are purely relative terms. They are convertible as our perspective widens or contracts.⁶ It would be vain to speculate as to whether or not we shall ever be able to demonstrate that all languages stem from a common source. Of late years linguists have been able to make larger historical syntheses than were at one time deemed feasible, just as students of culture have been able to show historical connections between culture areas or institutions that were at one time believed to be totally isolated from each other. The human world is contracting not only prospectively but to the backward-probing eye of culture-history. Nevertheless we are as yet far from able to reduce the riot of spoken languages to a small number of "stocks." We must still operate with a quite considerable number of these stocks. Some of them, like Indo-European or Indo-Chinese, are spoken over tremendous reaches; others, like Basque,⁷ have a curiously restricted range and are in all likelihood but dwindling remnants of groups that were at one time more widely distributed. As for the single or multiple origin of speech, it is likely enough that language as a human institution (or, if one prefers, as a human "faculty") developed but once in the history of the race, that all the complex history of language is a unique cultural event. Such a theory constructed "on general principles" is of no real interest, however,

⁶ "Dialect" in contrast to an accepted literary norm is a use of the term that we are not considering.

⁷ Spoken in France and Spain in the region of the Pyrenees.

to linguistic science. What lies beyond the demonstrable must be left to the philosopher or the romancer.

We must return to the conception of "drift" in language. If the historical changes that take place in a language, if the vast accumulation of minute modifications which in time results in the complete remodeling of the language, are not in essence identical with the individual variations that we note on every hand about us, if these variations are born only to die without a trace, while the equally minute, or even minuter, changes that make up the drift are forever imprinted on the history of the language, are we not imputing to this history a certain mystical quality? Are we not giving language a power to change of its own accord over and above the involuntary tendency of individuals to vary the norm? And if this drift of language is not merely the familiar set of individual variations seen in vertical perspective, that is historically, instead of horizontally, that is in daily experience, what is it? Language exists only in so far as it is actually used—spoken and heard, written and read. What significant changes take place in it must exist, to begin with, as individual variations. This is perfectly true, and yet it by no means follows that the general drift of language can be understood⁸ from an exhaustive descriptive study of these variations alone. They themselves are random phenomena,⁹ like the waves of the sea, moving backward and forward in purposeless flux. The linguistic drift has direction. In other words, only those individual variations embody it or carry it which move in a certain direction, just as only certain wave movements in the bay outline the tide. The drift

⁸ Or rather apprehended, for we do not, in sober fact, entirely understand it as yet.

⁹ Not ultimately random, of course, only relatively so.

of a language is constituted by the unconscious selection on the part of its speakers of those individual variations that are cumulative in some special direction. This direction may be inferred, in the main, from the past history of the language. In the long run any new feature of the drift becomes part and parcel of the common, accepted speech, but for a long time it may exist as a mere tendency in the speech of a few, perhaps of a despised few. As we look about us and observe current usage, it is not likely to occur to us that our language has a "slope," that the changes of the next few centuries are in a sense prefigured in certain obscure tendencies of the present and that these changes, when consummated, will be seen to be but continuations of changes that have been already effected. We feel rather that our language is practically a fixed system and that what slight changes are destined to take place in it are as likely to move in one direction as another. The feeling is fallacious. Our very uncertainty as to the impending details of change makes the eventual consistency of their direction all the more impressive.

Sometimes we can feel where the drift is taking us even while we struggle against it. Probably the majority of those who read these words feel that it is quite "incorrect" to say "Who did you see?" We readers of many books are still very careful to say "Whom did you see?" but we feel a little uncomfortable (uncomfortably proud, it may be) in the process. We are likely to avoid the locution altogether and to say "Who was it you saw?" conserving literary tradition (the "whom") with the dignity of silence.¹⁰ The

¹⁰ In relative clauses too we tend to avoid the objective form of who." Instead of "The man whom I saw" we are likely to say "The man that I saw" or "The man I saw."

folk makes no apology. "Whom did you see?" might do for an epitaph, but "Who did you see?" is the natural form for an eager inquiry. It is of course the uncontrolled speech of the folk to which we must look for advance information as to the general linguistic movement. It is safe to prophesy that within a couple of hundred years from to-day not even the most learned jurist will be saying "Whom did you see?" By that time the "whom" will be as delightfully archaic as the Elizabethan "his" for "its."¹¹ No logical or historical argument will avail to save this hapless "whom." The demonstration "I: me = he: him = who: whom" will be convincing in theory and will go unheeded in practice.

Even now we may go so far as to say that the majority of us are secretly wishing they could say "Who did you see?" It would be a weight off their unconscious minds if some divine authority, overruling the lifted finger of the pedagogue, gave them *carte blanche*. But we cannot too frankly anticipate the drift and maintain caste. We must affect ignorance of whither we are going and rest content with our mental conflict—uncomfortable conscious acceptance of the "whom," unconscious desire for the "who."¹² Mean-

¹¹ "Its" was at one time as impertinent a departure as the "who" of "Who did you see?" It forced itself into English because the old cleavage between masculine, feminine, and neuter was being slowly and powerfully supplemented by a new one between thing-class and animate-class. The latter classification proved too vital to allow usage to couple males and things ("his") as against females ("her"). The form "its" had to be created on the analogy of words like "man's," to satisfy the growing form feeling. The drift was strong enough to sanction a grammatical blunder.

¹² Psychoanalysts will recognize the mechanism. The mechanisms of "repression of impulse" and of its symptomatic symbolization can be illustrated in the most unexpected corners of individual and group psychology. A more general psychology

while we indulge our sneaking desire for the forbidden locution by the use of the "who" in certain twilight cases in which we can cover up our fault by a bit of unconscious special pleading. Imagine that some one drops the remark when you are not listening attentively, "John Smith is coming to-night." You have not caught the name and ask, not "Whom did you say?" but "Who did you say?" There is likely to be a little hesitation in the choice of the form, but the precedent of usages like "Whom did you see?" will probably not seem quite strong enough to induce a "Whom did you say?" Not quite relevant enough, the grammarian may remark, for a sentence like "Who did you say?" is not strictly analogous to "Whom did you see?" or "Whom did you mean?" It is rather an abbreviated form of some such sentence as "Who, did you say, is coming to-night?" This is the special pleading that I have referred to, and it has a certain logic on its side. Yet the case is more hollow than the grammarian thinks it to be, for in reply to such a query as "You're a good hand at bridge, John, aren't you?" John, a little taken aback, might mutter "Did you say me?" hardly "Did you say I?" Yet the logic for the latter ("Did you say I was a good hand at bridge?") is evident. The real point is that there is not enough vitality in the "whom" to carry it over such little difficulties as a "me" can compass without a thought. The proportion "I: me = he: him = who: whom" is logically and historically sound, but psychologically shaky. "Whom did you see?" is correct, but there is something false about its correctness.

It is worth looking into the reason for our curious

than Freud's will eventually prove them to be as applicable to the groping for abstract form, the logical or esthetic ordering of experience, as to the life of the fundamental instincts.

reluctance to use locutions involving the word "whom," particularly in its interrogative sense. The only distinctively objective forms which we still possess in English are *me*, *him*, *her* (a little blurred because of its identity with the possessive *her*), *us*, *them*, and *whom*. In all other cases the objective has come to be identical with the subjective—that is, in outer form, for we are not now taking account of position in the sentence. We observe immediately in looking through the list of objective forms that *whom* is psychologically isolated. *Me*, *him*, *her*, *us*, and *them* form a solid, well-integrated group of objective personal pronouns parallel to the subjective series *I*, *he*, *she*, *we*, *they*. The forms *who* and *whom* are technically "pronouns" but they are not felt to be in the same box as the personal pronouns. *Whom* has clearly a weak position, an exposed flank, for words of a feather tend to flock together, and if one strays behind, it is likely to incur danger of life. Now the other interrogative and relative pronouns (*which*, *what*, *that*), with which *whom* should properly flock, do not distinguish the subjective and objective forms. It is psychologically unsound to draw the line of form cleavage between *whom* and the personal pronouns on the one side, the remaining interrogative and relative pronouns on the other. The form groups should be symmetrically related to, if not identical with, the function groups. Had *which*, *what*, and *that* objective forms parallel to *whom*, the position of this last would be more secure. As it is, there is something unesthetic about the word. It suggests a form pattern which is not filled out by its fellows. The only way to remedy the irregularity of form distribution is to abandon the *whom* altogether, for we have lost the power to create new objective forms and cannot remodel our *which-what-that* group

so as to make it parallel with the smaller group *who-whom*. Once this is done, *who* joins its flock and our unconscious desire for form symmetry is satisfied. We do not secretly chafe at "Whom did you see?" without reason.¹³

But the drift away from *whom* has still other determinants. The words *who* and *whom* in their interrogative sense are psychologically related not merely to the pronouns *which* and *what*, but to a group of interrogative adverbs—*where*, *when*, *how*—all of which are invariable and generally emphatic. I believe it is safe to infer that there is a rather strong feeling in English that the interrogative pronoun or adverb, typically an emphatic element in the sentence, should be invariable. The inflective *-m* of *whom* is felt as a drag upon the rhetorical effectiveness of the word. It needs to be eliminated if the interrogative pronoun is to receive all its latent power. There is still a third, and a very powerful, reason for the avoidance of *whom*. The contrast between the subjective and objective series of personal pronouns (*I, he, she, we, they: me, him, her, us, them*) in English associated with a difference of position. We say *I see the man* but *the man sees me; he told him*, never *him he told* or *him told he*. Such usages as the last two are distinctly poetic and archaic; they are opposed to the present drift of the language. Even in the interrogative one does not say *Him did you see?* It is only in sentences of the type *Whom did you see?* that an inflected objective before the verb is now used

¹³Note that it is different with *whose*. This has not the support of analogous possessive forms in its own functional group, but the analogical power of the great body of possessives of nouns (*man's, boy's*) as well as of certain personal pronouns (*his, its*; as predicated possessive also *hers, yours, theirs*) is sufficient to give it vitality.

at all. On the other hand, the order in *Whom did you see?* is imperative because of its interrogative form; the interrogative pronoun or adverb normally comes first in the sentence (*What are you doing? When did he go? Where are you from?*). In the "whom" of *Whom did you see?* there is concealed, therefore, a conflict between the order proper to a sentence containing an inflected objective and the order natural to a sentence with an interrogative pronoun or adverb. The solution *Did you see whom?* or *You saw whom?*¹⁴ is too contrary to the idiomatic drift of our language to receive acceptance. The more radical solution *Who did you see?* is the one the language is gradually making for.

These three conflicts—on the score of form grouping, of rhetorical emphasis, and of order—are supplemented by a fourth difficulty. The emphatic *whom*, with its heavy build (half-long vowel followed by labial consonant), should contrast with a lightly tripping syllable immediately following. In *whom did*, however, we have an involuntary retardation that makes the locution sound "clumsy." This clumsiness is a phonetic verdict, quite apart from the dissatisfaction due to the grammatical factors which we have analyzed. The same prosodic objection does not apply to such parallel locutions as *what did* and *when did*. The vowels of *what* and *when* are shorter and their final consonants melt easily into the following *d*, which is pronounced in the same tongue position as *t* and *n*. Our instinct for appropriate rhythms makes it as difficult for us to feel content with *whom did* as for a poet to use words like *dreamed* and

¹⁴ Aside from certain idiomatic usages, as when *You saw whom?* is equivalent to *You saw so and so and that so and so is who?* In such sentences *whom* is pronounced high and lingeringly to emphasize the fact that the person just referred to by the listener is not known or recognized.

hummed in a rapid line. Neither common feeling nor the poet's choice need be at all conscious. It may be that not all are equally sensitive to the rhythmic flow of speech, but it is probable that rhythm is an unconscious linguistic determinant even with those who set little store by its artistic use. In any event the poet's rhythms can only be a more sensitive and stylized application of rhythmic tendencies that are characteristic of the daily speech of his people.

We have discovered no less than four factors which enter into our subtle disinclination to say "Whom did you see?" The uneducated folk that says "Who did you see?" with no twinge of conscience has a more acute flair for the genuine drift of the language than its students. Naturally the four restraining factors do not operate independently. Their separate energies, if we may make bold to use a mechanical concept, are "canalized" into a single force. This force or minute embodiment of the general drift of the language is psychologically registered as a slight hesitation in using the word *whom*. The hesitation is likely to be quite unconscious, though it may be readily acknowledged when attention is called to it. The analysis is certain to be unconscious, or rather unknown, to the normal speaker.¹⁵ How, then, can we be certain in such an analysis as we have undertaken that all of the assigned determinants are really operative and not merely some one of them? Certainly they are not equally powerful in all cases. Their values are variable, rising and falling according to the individual and the locution.¹⁶ But that they really

¹⁵ Students of language cannot be entirely normal in their attitude towards their own speech. Perhaps it would be better to say "naïve" than "normal."

¹⁶ It is probably this *variabllity of value* in the significant compounds of a general linguistic drift that is responsible for

exist, each in its own right, may sometimes be tested by the method of elimination. If one or other of the factors is missing and we observe a slight diminution in the corresponding psychological reaction ("hesitation" in our case), we may conclude that the factor is in other uses genuinely positive. The second of our four factors applies only to the interrogative use of *whom*, the fourth factor applies with more force to the interrogative than to the relative. We can therefore understand why a sentence like *Is he the man whom you referred to?* though not as idiomatic as *Is he the man (that) you referred to?* (remember that it sins against counts one and three), is still not as difficult to reconcile with our innate feeling for English expression as *Whom did you see?* If we eliminate the fourth factor from the interrogative usage,¹⁷ say in *Whom are you looking at?* where the vowel following *whom* relieves this word of its phonetic weight, we can observe, if I am not mistaken, a lesser reluctance to use the *whom*. *Who are you looking at?* might even sound slightly offensive to ears that welcome *Who did you see?*

We may set up a scale of "hesitation values" somewhat after this fashion:

Value 1: factors 1, 3. "The man whom I referred to."

Value 2: factors 1, 3, 4. "The man whom they referred to."

Value 3: factors 1, 2, 3. "Whom are you looking at?"

Value 4: factors 1, 2, 3, 4. "Whom did you see?"

the rise of dialectic variations. Each dialect continues the general drift of the common parent, but has not been able to hold fast to constant values for each component of the drift. Deviations as to the drift itself, at first slight, later cumulative, are therefore unavoidable.

¹⁷ Most sentences beginning with interrogative *whom* are likely to be followed by *did* or *does, do*. Yet not all.

We may venture to surmise that while *whom* will ultimately disappear from English speech, locutions of the type *Whom did you see?* will be obsolete when phrases like *The man whom I referred to* are still in lingering use. It is impossible to be certain, however, for we can never tell if we have isolated all the determinants of a drift. In our particular case we have ignored what may well prove to be a controlling factor in the history of *who* and *whom* in the relative sense. This is the unconscious desire to leave these words to their interrogative function and to concentrate on *that* or mere word order as expressions of the relative (e.g., *The man that I referred to* or *The man I referred to*). This drift, which does not directly concern the use of *whom* as such (merely of *whom* as a form of *who*), may have made the relative *who* obsolete before the other factors affecting relative *whom* have run their course. A consideration like this is instructive because it indicates that knowledge of the general drift of a language is insufficient to enable us to see clearly what the drift is heading for. We need to know something of the relative potencies and speeds of the components of the drift.

It is hardly necessary to say that the particular drifts involved in the use of *whom* are of interest to us not for their own sake but as symptoms of larger tendencies at work in the language. At least three drifts of major importance are discernible. Each of these has operated for centuries, each is at work in other parts of our linguistic mechanism, each is almost certain to continue for centuries, possibly millennia. The first is the familiar tendency to level the distinction between the subjective and the objective, itself but a late chapter in the steady reduction of the old Indo-European system of syntactic cases. This system, which is at present best

preserved in Lithuanian,¹⁸ was already considerably reduced in the old Germanic language of which English, Dutch, German, Danish, and Swedish are modern dialectic forms. The seven Indo-European cases (nominative, genitive, dative, accusative, ablative, locative, instrumental) had been already reduced to four (nominative, genitive, dative, accusative). We know this from a careful comparison of and reconstruction based on the oldest Germanic dialects of which we still have records (Gothic, Old Icelandic, Old High German, Anglo-Saxon). In the group of West Germanic dialects, for the study of which Old High German, Anglo-Saxon, Old Frisian, and Old Saxon are our oldest and most valuable sources, we still have these four cases, but the phonetic form of the case syllables is already greatly reduced and in certain paradigms particular cases have coalesced. The case system is practically intact but it is evidently moving towards further disintegration. Within the Anglo-Saxon and early Middle English period there took place further changes in the same direction. The phonetic form of the case syllables became still further reduced and the distinction between the accusative and the dative finally disappeared. The new "objective" is really an amalgam of old accusative and dative forms; thus, *him*, the old dative (we still say *I give him the book*, not "abbreviated" from *I give to him*; compare Gothic *imma*, modern German *ihm*), took over the functions of the old accusative (Anglo-Saxon *hine*; compare Gothic *ina*, Modern German *ihn*) and dative. The distinction between the nominative and accusative was nibbled away by phonetic processes and

¹⁸ Better, indeed, than in our oldest Latin and Greek records. The old Indo-Iranian languages alone (Sanskrit, Avestan) show an equally or more archaic status of the Indo-European parent tongue as regards case forms.

morphological levelings until only certain pronouns retained distinctive subjective and objective forms.

In later medieval and in modern times there have been comparatively few apparent changes in our case system apart from the gradual replacement of *thou*—*thee* (singular) and subjective *ye*—objective *you* (plural) by a single undifferentiated form *you*. All the while, however, the case system, such as it is (subjective-objective, really absolute, and possessive in nouns; subjective, objective, and possessive in certain pronouns) has been steadily weakening in psychological respects. At present it is more seriously undermined than most of us realize. The possessive has little vitality except in the pronoun and in animate nouns. Theoretically we can still say *the moon's phases* or *a newspaper's vogue*; practically we limit ourselves pretty much to analytic locutions like *the phases of the moon* and *the vogue of a newspaper*. The drift is clearly toward the limitation of possessive forms to animate nouns. All the possessive pronominal forms except *its* and, in part, *their* and *theirs*, are also animate. It is significant that *theirs* is hardly ever used in reference to inanimate nouns, that there is some reluctance to so use *their*, and that *its* also is beginning to give way to *of it*. *The appearance of it* or *the looks of it* is more in the current of the language than *its appearance*. It is curiously significant that *its young* (referring to an animal's cubs) is idiomatically preferable to *the young of it*. The form is only ostensibly neuter, in feeling it is animate; psychologically it belongs with *his children*, not with *the pieces of it*. Can it be that so common a word as *its* is actually beginning to be difficult? Is it too doomed to disappear? It would be rash to say that it shows signs of approaching obsolescence, but that it is steadily weak-

ening is fairly clear.¹⁹ In any event, it is not too much to say that there is a strong drift towards the restriction of the inflected possessive forms to animate nouns and pronouns.

How is it with the alternation of subjective and objective in the pronoun? Granted that *whom* is a weak sister, that the two cases have been leveled in *you* (in *it*, *that*, and *what* they were never distinct, so far as we can tell²⁰), and that *her* as an objective is a trifle weak because of its formal identity with the possessive *her*, is there any reason to doubt the vitality of such alternations as *I see the man* and *the man sees me*? Surely the distinction between subjective *I* and objective *me*, between subjective *he* and objective *him*, and correspondingly for other personal pronouns, belongs to the very core of the language. We can throw *whom* to the dogs, somehow make shift to do without an *its*, but to level *I* and *me* to a single case—would that not be to un-English our language beyond recognition? There is no drift toward such horrors as *Me see him* or *I see he*. True, the phonetic disparity between *I* and *me*, *he* and *him*, *we* and *us*, has been too great for any serious possibility of form leveling. It does not follow that the case distinction as such is still vital. One of the most insidious peculiarities of a linguistic drift is that where it cannot destroy what lies in its way it renders it innocuous by washing the old significance out of it. It turns its very enemies to its own uses. This brings us to the second of the major drifts, the tendency to fixed posi-

¹⁹ Should *its* eventually drop out, it will have had a curious history. It will have played the rôle of a stop-gap between *his* in its non-personal use (see footnote 11, page 167) and the later analytic *of it*.

²⁰ Except in so far as *that* has absorbed other functions than such as originally belonged to it. It was only a nominative-accusative neuter to begin with.

tion in the sentence, determined by the syntactic relation of the word.

We need not go into the history of this all-important drift. It is enough to know that as the inflected forms of English became seantier, as the syntactic relations were more and more inadequately expressed by the forms of the words themselves, position in the sentence gradually took over functions originally foreign to it. *The man in the man sees the dog* is subjective; in *the dog sees the man*, objective. Strictly parallel to these sentences are *he sees the dog* and *the dog sees him*. Are the subjective value of *he* and the objective value of *him* entirely, or even mainly, dependent on the difference of form? I doubt it. We could hold to such a view if it were possible to say *the dog sees he* or *him sees the dog*. It was once possible to say such things, but we have lost the power. In other words, at least part of the case feeling in *he* and *him* is to be credited to their position before or after the verb. May it not be, then, that *he* and *him*, *we* and *us*, are not so much subjective and objective forms as pre-verbal and post-verbal²¹ forms, very much as *my* and *mine* are now pre-nominal and post-nominal forms of the possessive (*my father* but *father mine*; *it is my book* but *the book is mine*)? That this interpretation corresponds to the actual drift of the English language is again indicated by the language of the folk. The folk says *it is me*, not *it is I*, which is "correct" but just as falsely so as the *whom did you see?* that we have analyzed. *I'm the one, it's me; we're*

²¹ Aside from the interrogative: *am I? is he?* Emphasis counts for something. There is a strong tendency for the old "objective" forms to bear a stronger stress than the "subjective" forms. This is why the stress in locutions like *He didn't go, did he?* and *isn't he?* is thrown back on the verb; it is not a matter of logical emphasis.

the ones, it's us that will win out—such are the live parallelisms in English to-day. There is little doubt that *it is I* will one day be as impossible in English as *c'est je*, for *c'est moi*, is now in French.

How differently our *I: me* feels than in Chaucer's day is shown by the Chaucerian *it am I*. Here the distinctively subjective aspect of the *I* was enough to influence the form of the preceding verb in spite of the introductory *it*; Chaucer's locution clearly felt more like a Latin *sum ego* than a modern *it is I* or colloquial *it is me*. We have a curious bit of further evidence to prove that the English personal pronouns have lost some share of their original syntactic force. Were *he* and *she* subjective forms pure and simple, were they not striving, so to speak, to become caseless absolutives, like *man* or any other noun, we should not have been able to coin such compounds as *he-goat* and *she-goat*, words that are psychologically analogous to *bull-moose* and *mother-bear*. Again, in inquiring about a new-born baby, we ask *Is it a he or a she?* quite as though *he* and *she* were the equivalents of *male* and *female* or *boy* and *girl*. All in all, we may conclude that our English case system is weaker than it looks and that, in one way or another, it is destined to get itself reduced to an absolutive (caseless) form for all nouns and pronouns but those that are animate. Animate nouns and pronouns are sure to have distinctive possessive forms for an indefinitely long period.

Meanwhile observe that the old alignment of case forms is being invaded by two new categories—a positional category (pre-verbal, post-verbal) and a classificatory category (animate, inanimate). The facts that in the possessive animate nouns and pronouns are destined to be more and more sharply distinguished

from inanimate nouns and pronouns (*the man's*, but *of the house*; *his*, but *of it*) and that, on the whole, it is only animate pronouns that distinguish pre-verbal and post-verbal forms²² are of the greatest theoretical interest. They show that, however the language strive for a more and more analytic form, it is by no means manifesting a drift toward the expression of "pure" relational concepts in the Indo-Chinese manner.²³ The insistence on the concreteness of the relational concepts is clearly stronger than the destructive power of the most sweeping and persistent drifts that we know of in the history and prehistory of our language.

The drift toward the abolition of most case distinctions and the correlative drift toward position as an all-important grammatical method are accompanied, in a sense dominated, by the last of the three major drifts that I have referred to. This is the drift toward the invariable word. In analyzing the "whom" sentence I pointed out that the rhetorical emphasis natural to an interrogative pronoun lost something by its form variability (*who*, *whose*, *whom*). This striving for a simple, unnuanced correspondence between idea and word, as invariable as may be, is very strong in English. It accounts for a number of tendencies which at first sight seem unconnected. Certain well-established forms, like the present third person singular *-s* of *works* or the plural *-s* of *books*, have resisted the drift to invariable words, possibly because they symbolize certain stronger form cravings that we do not yet fully understand. It is interesting to note that derivations that get away sufficiently from the

²² *They*; *them* as an inanimate group may be looked upon as a kind of borrowing from the animate, to which, in feeling, it more properly belongs.

²³ See page 155.

concrete notion of the radical word to exist as independent conceptual centers are not affected by this elusive drift. As soon as the derivation runs danger of being felt as a mere nuancing of, a finicky play on, the primary concept, it tends to be absorbed by the radical word, to disappear as such. English words crave spaces between them, they do not like to huddle in clusters of slightly divergent centers of meaning, each edging a little away from the rest. *Goodness*, a noun of quality, almost a noun of relation, that takes its cue from the concrete idea of "good" without necessarily predicating that quality (e.g., *I do not think much of his goodness*) is sufficiently spaced from *good* itself not to need fear absorption. Similarly, *unable* can hold its own against *able* because it destroys the latter's sphere of influence; *unable* is psychologically as distinct from *able* as is *blundering* or *stupid*. It is different with adverbs in *-ly*. These lean too heavily on their adjectives to have the kind of vitality that English demands of its words. *Do it quickly!* drags psychologically. The nuance expressed by *quickly* is too close to that of *quick*, their circles of concreteness are too nearly the same, for the two words to feel comfortable together. The adverbs in *-ly* are likely to go to the wall in the not too distant future for this very reason and in face of their obvious usefulness. Another instance of the sacrifice of highly useful forms to this impatience of nuancing is the group *whence, whither, hence, hither, thence, thither*. They could not persist in live usage because they impinged too solidly upon the circles of meaning represented by the words *where, here* and *there*. In saying *whither* we feel too keenly that we repeat all of *where*. That we add to *where* an important nuance of direction irritates rather than satisfies. We prefer

to merge the static and the directive (*Where do you live?* like *Where are you going?*) or, if need be, to overdo a little the concept of direction (*Where are you running to?*).

Now it is highly symptomatic of the nature of the drift away from word clusters that we do not object to nuances as such, we object to having the nuances formally earmarked for us. As a matter of fact our vocabulary is rich in near-synonyms and in groups of words that are psychologically near relatives, but these near-synonyms and these groups do not hang together by reason of etymology. We are satisfied with *believe* and *credible* just because they keep aloof from each other. *Good* and *well* go better together than *quick* and *quickly*. The English vocabulary is a rich medley because each English word wants its own castle. Has English long been peculiarly receptive to foreign words because it craves the staking out of as many word areas as possible, or, conversely, has the mechanical imposition of a flood of French and Latin loan-words, unrooted in our earlier tradition, so dulled our feeling for the possibilities of our native resources that we are allowing these to shrink by default? I suspect that both propositions are true. Each feeds on the other. I do not think it likely, however, that the borrowings in English have been as mechanical and external a process as they are generally represented to have been. There was something about the English drift as early as the period following the Norman Conquest that welcomed the new words. They were a compensation for something that was weakening within.

VIII

LANGUAGE AS A HISTORICAL PRODUCT: PHONETIC LAW

I HAVE preferred to take up in some detail the analysis of our hesitation in using a locution like "Whom did you see?" and to point to some of the English drifts, particular and general, that are implied by this hesitation than to discuss linguistic change in the abstract. What is true of the particular idiom that we started with is true of everything else in language. Nothing is perfectly static. Every word, every grammatical element, every locution, every sound and accent is a slowly changing configuration, molded by the invisible and impersonal drift that is the life of language. The evidence is overwhelming that this drift has a certain consistent direction. Its speed varies enormously according to circumstances that it is not always easy to define. We have already seen that Lithuanian is to-day nearer its Indo-European prototype than was the hypothetical Germanic mother-tongue five hundred or a thousand years before Christ. German has moved more slowly than English; in some respects it stands roughly midway between English and Anglo-Saxon, in others it has of course diverged from the Anglo-Saxon line. When I pointed out in the preceding chapter that dialects formed because a language broken up into local segments could not move along the same drift in all of these segments, I meant of course that it could not move along identically the same drift. The general drift of a language has its depths.

At the surface the current is relatively fast. In certain features dialects drift apart rapidly. By that very fact these features betray themselves as less fundamental to the genius of the language than the more slowly modifiable features in which the dialects keep together long after they have grown to be mutually alien forms of speech. But this is not all. The momentum of the more fundamental, the pre-dialectic, drift is often such that languages long disconnected will pass through the same or strikingly similar phases. In many such cases it is perfectly clear that there could have been no dialectic interinfluencing.

These parallelisms in drift may operate in the phonetic as well as in the morphological sphere, or they may affect both at the same time. Here is an interesting example. The English type of plural represented by *foot: feet, mouse: mice* is strictly parallel to the German *Fuss: Füsse, Maus: Mäuse*. One would be inclined to surmise that these dialectic forms go back to old Germanic or West-Germanic alternations of the same type. But the documentary evidence shows conclusively that there could have been no plurals of this type in primitive Germanic. There is no trace of such vocalic mutation ("umlaut") in Gothic, our most archaic Germanic language. More significant still is the fact that it does not appear in our oldest Old High German texts and begins to develop only at the very end of the Old High German period (circa 1000 A.D.). In the Middle High German period the mutation was carried through in all dialects. The typical Old High German forms are singular *fuoss*, plural *fuossi*;¹ singular *mus*, plural

¹ I have changed the Old and Middle High German orthography slightly in order to bring it into accord with modern usage. These purely orthographical changes are immaterial. The *u* of *mus* is a long vowel, very nearly like the *oo* of English *moose*.

musi. The corresponding Middle High German forms are *fuoss, füesse; mus, müse*. Modern German *Fuss: Flüsse, Maus: Mäuse* are the regular developments of these medieval forms. Turning to Anglo-Saxon, we find that our modern English forms correspond to *fot, fet; mus, mys*.² These forms are already in use in the earliest English monuments that we possess, dating from the eighth century, and thus antedate the Middle High German forms by three hundred years or more. In other words, on this particular point it took German at least three hundred years to catch up with a phonetic-morphological drift³ that had long been under way in English. The mere fact that the affected vowels of related words (Old High German *uo*, Anglo-Saxon *o*) are not always the same shows that the affection took place at different periods in German and English.⁴ There was evidently some general tendency or group of tendencies at work in early Germanic, long before English and German had developed as such, that eventually drove both of these dialects along closely parallel paths.

How did such strikingly individual alternations as *fot: fet, fuoss: füesse* develop? We have now reached

² The vowels of these four words are long; *o* as in *rode*, *e* like *a* of *fade*, *u* like *oo* of *brood*, *y* like German *ü*.

³ Or rather stage in a drift.

⁴ Anglo-Saxon *fet* is "unrounded" from an older *föt*, which is phonetically related to *fot* precisely as is *mys* (i.e., *müs*) to *mus*. Middle High German *üe* (Modern German *ü*) did not develop from an "umlauted" prototype of Old High German *uo* and Anglo-Saxon *o*, but was based directly on the dialectic *uo*. The unaffected prototype was long *o*. Had this been affected in the earliest Germanic or West-Germanic period, we should have had a pre-German alternation *fot: föti*; this older *ö* could not well have resulted in *üe*. Fortunately we do not need inferential evidence in this case, yet inferential comparative methods, if handled with care, may be exceedingly useful. They are indeed indispensable to the historian of language.

what is probably the most central problem in linguistic history, gradual phonetic change. "Phonetic laws" make up a large and fundamental share of the subject-matter of linguistics. Their influence reaches far beyond the proper sphere of phonetics and invades that of morphology, as we shall see. A drift that begins as a slight phonetic readjustment or unsettlement may in the course of millennia bring about the most profound structural changes. The mere fact, for instance, that there is a growing tendency to throw the stress automatically on the first syllable of a word may eventually change the fundamental type of the language, reducing its final syllables to zero and driving it to the use of more and more analytical or symbolic⁵ methods. The English phonetic laws involved in the rise of the words *foot*, *feet*, *mouse* and *mice* from their early West-Germanic prototypes *fot*, *foti*, *mus*, *musi*⁶ may be briefly summarized as follows:

1. In *foti* "feet" the long *o* was colored by the following *i* to long *ö*, that is, *o* kept its lip-rounded quality and its middle height of tongue position but anticipated the front tongue position of the *i*; *ö* is the resulting compromise. This assimilatory change was regular, i.e., every accented long *o* followed by an *i* in the following syllable automatically developed to long *ö*; hence *tothi* "teeth" became *töthi*, *fodian* "to feed" became *födian*. At first there is no doubt the alternation between *o* and *ö* was not felt as intrinsically significant. It could only have been an unconscious mechanical adjustment such as may be observed in the speech of many to-day who modify the "oo" sound of words like *you* and *few* in the

⁵ See page 133.

⁶ Primitive Germanic *fot(s)*, *fotiz*, *mus*, *musiz*; Indo-European *pods*, *podes*, *mus*, *muses*. The vowels of the first syllables are all long.

direction of German *ü* without, however, actually departing far enough from the "oo" vowel to prevent their acceptance of *who* and *you* as satisfactory rhyming words. Later on the quality of the *ö* vowel must have departed widely enough from that of *o* to enable *ö* to rise in consciousness⁷ as a neatly distinct vowel. As soon as this happened, the expression of plurality in *föti*, *töthi*, and analogous words became symbolic and fusional, not merely fusional.

2. In *musi* "mice" the long *u* was colored by the following *i* to long *ü*. This change also was regular; *lusi* "lice" became *lüsi*, *kui* "cows" became *küi* (later simplified to *kü*; still preserved as *ki-* in *kine*), *fulian* "to make foul" became *fülian* (still preserved as *-fle* in *defle*). The psychology of this phonetic law is entirely analogous to that of 1.

3. The old drift toward reducing final syllables, a rhythmic consequence of the strong Germanic stress on the first syllable, now manifested itself. The final *-i*, originally an important functional element, had long lost a great share of its value, transferred as that was to the symbolic vowel change (*o*:*ö*). It had little power of resistance, therefore, to the drift. It became dulled to a colorless *-e*; *föti* became *föte*.

4. The weak *-e* finally disappeared. Probably the forms *föte* and *föt* long coexisted as prosodic variants according to the rhythmic requirements of the sentence, very much as *Füsse* and *Füss'* now coexist in German.

5. The *ö* of *föt* became "unrounded" to long *e* (our present *a* of *fade*). The alternation of *fot*:*föti*, transitionally *fot*:*föti*, *föte*, *föt*, now appears as *fot*:*fet*. Analogously, *töth* appears as *teth*, *födian* as *fedian*, later

⁷ Or in that unconscious sound patterning which is ever on the point of becoming conscious. See page 57.

fedan. The new long *e*-vowel "fell together" with the older *e*-vowel already existent (e.g., *her* "here," *he* "he"). Henceforward the two are merged and their later history is in common. Thus our present *he* has the same vowel as *feet*, *teeth*, and *feed*. In other words, the old sound pattern *o*, *e*, after an interim of *o*, *ö*, *e*, reappeared as *o*, *e*, except that now the *e* had greater "weight" than before.

6. *Fot*: *fet*, *mus*: *müs* (written *mys*) are the typical forms of Anglo-Saxon literature. At the very end of the Anglo-Saxon period, say about 1050 to 1100 A.D., the *ü*, whether long or short, became unrounded to *i*. *Mys* was then pronounced *mis* with long *i* (rhyming with present *niece*). The change is analogous to 5, but takes place several centuries later.

7. In Chaucer's day (circa 1350-1400 A.D.) the forms were still *fot*: *fet* (written *foot*, *feet*) and *mus*: *mis* (written very variably, but *mous*, *myse* are typical). About 1500 all the long *i*-vowels, whether original (as in *write*, *ride*, *wine*) or unrounded from Anglo-Saxon *ü* (as in *hide*, *bride*, *mice*, *defile*), became diphthongized to *ei* (i.e., *e* of *met* + short *i*). Shakespeare pronounced *mice* as *meis* (almost the same as the present Cockney pronunciation of *mace*).

8. About the same time the long *u*-vowels were diphthongized to *ou* (i.e., *o* of present Scotch *not* + *u* of *full*). The Chaucerian *mus*: *mis* now appears as the Shakespearean *mous*: *meis*. This change may have manifested itself somewhat later than 7; all English dialects have diphthongized old Germanic long *i*,⁸ but the long undiphthongized *u* is still preserved in Lowland Scotch, in which *house* and *mouse* rhyme with our *loose*. 7 and 8 are analogous developments, as were 5 and 6; 8

⁸ As have most Dutch and German dialects.

apparently lags behind 7 as 6, centuries earlier, lagged behind 7.

9. Some time before 1550 the long *e* of *fet* (written *feet*) took the position that had been vacated by the old long *i*, now diphthongized (see 7), i.e., *e* took the higher tongue position of *i*. Our (and Shakespeare's) "long *e*" is, then, phonetically the same as the old long *i*. *Feet* now rhymed with the old *write* and the present *beat*.

10. About the same time the long *o* of *fot* (written *foot*) took the position that had been vacated by the old long *u*, now diphthongized (see 8), i.e., *o* took the higher tongue position of *u*. Our (and Shakespeare's) "long *oo*" is phonetically the same as the old long *u*. *Foot* now rhymed with the old *out* and the present *boot*. To summarize 7 to 10, Shakespeare pronounced *meis*, *mous*, *fit*, *fut*, of which *meis* and *mous* would affect our ears as a rather "mincing" rendering of our present *mice* and *mouse*, *fit* would sound practically identical with (but probably a bit more "drawled" than) our present *feet*, while *foot*, rhyming with *boot*, would now be set down as "broad Scotch."

11. Gradually the first vowel of the diphthong in *mice* (see 7) was retracted and lowered in position. The resulting diphthong now varies in different English dialects, but *ai* (i.e., *a* of *father*, but shorter, + short *i*) may be taken as a fairly accurate rendering of its average quality.⁹ What we now call the "long *i*" (of words like *ride*, *bite*, *mice*) is, of course, an *ai*-diphthong. *Mice* is now pronounced *mais*.

12. Analogously to 11, the first vowel of the diphthong in *mouse* (see 8) was unrounded and lowered in position. The resulting diphthong may be phonetically rendered *au*, though it too varies considerably accord-

⁹ At least in America.

ing to dialect. *Mouse*, then, is now pronounced *maus*.

13. The vowel of *foot* (see 10) became "open" in quality and shorter in quantity, i.e., it fell together with the old short *u*-vowel of words like *full*, *wolf*, *wool*. This change has taken place in a number of words with an originally long *u* (Chaucerian long close *o*), such as *forsook*, *hook*, *book*, *look*, *rook*, *shook*, all of which formerly had the vowel of *boot*. The older vowel, however, is still preserved in most words of this class, such as *fool*, *moon*, *spool*, *stoop*. It is highly significant of the nature of the slow spread of a "phonetic law" that there is local vacillation at present in several words. One hears *roof*, *soot*, and *hoop*, for instance, both with the "long" vowel of *boot* and the "short" of *foot*. It is impossible now, in other words, to state in a definitive manner what is the "phonetic law" that regulated the change of the older *foot* (rhyming with *boot*) to the present *foot*. We know that there is a strong drift towards the short, open vowel of *foot*, but whether or not all the old "long *oo*" words will eventually be affected we cannot presume to say. If they all, or practically all, are taken by the drift, phonetic law 13 will be as "regular," as sweeping, as most of the twelve that have preceded it. If not, it may eventually be possible, if past experience is a safe guide, to show that the modified words form a natural phonetic group, that is, that the "law" will have operated under certain definable limiting conditions, e.g., that all words ending in a voiceless consonant (such as *p*, *t*, *k*, *f*) were affected (e.g., *hoof*, *foot*, *look*, *roof*), but that all words ending in the *oo*-vowel or in a voiced consonant remained unaffected (e.g., *do*, *food*, *move*, *fool*). Whatever the upshot, we may be reasonably certain that when the "phonetic law" has run its course, the distribution of "long" and

“short” vowels in the old *oo*-words will not seem quite as erratic as at the present transitional moment.^{9a} We learn, incidentally, the fundamental fact that phonetic laws do not work with spontaneous automatism, that they are simply a formula for a consummated drift that sets in at a psychologically exposed point and gradually worms its way through a gamut of phonetically analogous forms.

It will be instructive to set down a table of form sequences, a kind of gross history of the words *foot*, *feet*, *mouse*, *mice* for the last 1500 years:¹⁰

- I. *fo*t: *fo*ti; *mu*s: *mu*si (West Germanic)
- II. *fo*t: *fö*ti; *mu*s: *mü*si
- III. *fo*t: *fö*te; *mu*s: *mü*se
- IV. *fo*t: *föt*; *mu*s: *müs*
- V. *fo*t: *fe*t; *mu*s: *müs* (Anglo-Saxon)
- VI. *fo*t: *fe*t; *mu*s: *mi*s (Chaucer)
- VII. *fo*t: *fe*t; *mou*s: *me*is
- VIII. *fu*t (rhymes with *boot*): *fi*t; *mou*s: *me*is (Shakespeare)
- IX. *fu*t: *fi*t; *mau*s: *mai*s
- X. *fu*t (rhymes with *put*): *fi*t; *mau*s: *mai*s (English of 1900)

It will not be necessary to list the phonetic laws that gradually differentiated the modern German equivalents of the original West Germanic forms from their English cognates. The following table gives a rough idea of the form sequences in German:¹¹

^{9a} It is possible that other than purely phonetic factors are also at work in the history of these vowels.

¹⁰ The orthography is roughly phonetic. Pronounce all accented vowels long except where otherwise indicated, unaccented vowels short; give continental values to vowels, not present English ones.

¹¹ After I. the numbers are not meant to correspond chronologically to those of the English table. The orthography is again roughly phonetic.

- I. *fot: foti; mus: musī* (West Germanic)
- II. *foss: ¹²fossi; mus: musī*
- III. *fuoss: fuossi; mus: musī* (Old High German)
- IV. *fuoss: füessi; mus: müsi*
- V. *fuoss: füesse; mus: müse* (Middle High German)
- VI. *fuoss: füesse; mus: müze ¹³*
- VII. *fuos: füese; mus: müze*
- VIII. *fuos: füese; mous: möüze*
- IX. *fus: füse; mous: möüze* (Luther)
- X. *fus: füse; maus: moize* (German of 1900)

We cannot even begin to ferret out and discuss all the psychological problems that are concealed behind these bland tables. Their general parallelism is obvious. Indeed we might say that to-day the English and German forms resemble each other more than does either set the West Germanic prototypes from which each is independently derived. Each table illustrates the tendency to reduction of unaccented syllables, the vocalic modification of the radical element under the influence of the following vowel, the rise in tongue position of the long middle vowels (English *o* to *u*, *e* to *i*; German *o* to *uo* to *u*, *üe* to *ü*), the diphthongizing of the old high vowels (English *i* to *ei* to *ai*; English and German *u* to

¹² I use *ss* to indicate a peculiar long, voiceless *s*-sound that was etymologically and phonetically distinct from the old Germanic *s*. It always goes back to an old *t*. In the old sources it is generally written as a variant of *z*, though it is not to be confused with the modern German *z* (= *ts*). It was probably a dental (lisped) *s*.

¹³ *Z* is to be understood as French or English *z*, not in its German use. Strictly speaking, this "z" (intervocalic -s-) was not voiced but was a soft voiceless sound, a sibilant intermediate between our *s* and *z*. In modern North German it has become voiced to *z*. It is important not to confound this *s* - *z* with the voiceless intervocalic *s* that soon arose from the older lisped *ss*. In Modern German (aside from certain dialects), old *s* and *ss* are not now differentiated when final (*Maus* and *Fuss* have identical sibilants), but can still be distinguished as voiced and voiceless *s* between vowels (*Mäuse* and *Füsse*).

ou to *au*; German *ü* to *öü* to *oi*). These dialectic parallels cannot be accidental. They are rooted in a common, pre-dialectic drift.

Phonetic changes are "regular." All but one (English table, X.), and that as yet uncompleted, of the particular phonetic laws represented in our tables affect all examples of the sound in question or, if the phonetic change is conditional, all examples of the same sound that are analogously circumstanced.¹⁴ An example of the first type of change is the passage in English of all old long *i*-vowels to diphthongal *ai* via *ei*. The passage could hardly have been sudden or automatic, but it was rapid enough to prevent an irregularity of development due to cross drifts. The second type of change is illustrated in the development of Anglo-Saxon long *o* to long *e*, via *ö*, under the influence of a following *i*. In the first case we may say that *au* mechanically replaced long *u*, in the second that the old long *o* "split" into two sounds—long *o*, eventually *u*, and long *e*, eventually *i*. The former type of change did no violence to the old phonetic pattern, the formal distribution of sounds into groups; the latter type rearranged the pattern somewhat. If neither of the two sounds into which an old one "splits" is a new sound, it means that there has been a phonetic leveling, that two groups of words, each with a distinct sound or sound combination, have fallen together into one group. This kind of leveling is quite frequent in the history of language. In English, for

¹⁴ In practice phonetic laws have their exceptions, but more intensive study almost invariably shows that these exceptions are more apparent than real. They are generally due to the disturbing influence of morphological groupings or to special psychological reasons which inhibit the normal progress of the phonetic drift. It is remarkable with how few exceptions one need operate in linguistic history, aside from "analogical leveling" (morphological replacement).

instance, we have seen that all the old long *ü*-vowels, after they had become unrounded, were indistinguishable from the mass of long *i*-vowels. This meant that the long *i*-vowel became a more heavily weighted point of the phonetic pattern than before. It is curious to observe how often languages have striven to drive originally distinct sounds into certain favorite positions, regardless of resulting confusions.¹⁵ In Modern Greek, for instance, the vowel *i* is the historical resultant of no less than ten etymologically distinct vowels (long and short) and diphthongs of the classical speech of Athens. There is, then, good evidence to show that there are general phonetic drifts toward particular sounds.

More often the phonetic drift is of a more general character. It is not so much a movement toward a particular set of sounds as toward particular types of articulation. The vowels tend to become higher or lower, the diphthongs tend to coalesce into monophthongs, the voiceless consonants tend to become voiced, stops tend to become spirants. As a matter of fact, practically all the phonetic laws enumerated in the two tables are but specific instances of such far-reaching phonetic drifts. The raising of English long *o* to *u* and of long *e* to *i*, for instance, was part of a general tendency to raise the position of the long vowels, just as the change of *t* to *s* in Old High German was part of a general tendency to make voiceless spirants of the old voiceless stopped consonants. A single sound change, even if there is no phonetic leveling, generally threatens to upset the old phonetic pattern because it brings about a disharmony in the grouping of sounds. To reestablish the old pattern

¹⁵ These confusions are more theoretical than real, however. A language has countless methods of avoiding practical ambiguities.

without going back on the drift the only possible method is to have the other sounds of the series shift in analogous fashion. If, for some reason or other, *p* becomes shifted to its voiced correspondent *b*, the old series *p, t, k* appears in the unsymmetrical form *b, t, k*. Such a series is, in phonetic effect, not the equivalent of the old series, however it may answer to it in etymology. The general phonetic pattern is impaired to that extent. But if *t* and *k* are also shifted to their voiced correspondents *d* and *g*, the old series is reestablished in a new form: *b, d, g*. The pattern as such is preserved, or restored. *Provided that* the new series *b, d, g* does not become confused with an old series *b, d, g* of distinct historical antecedents. If there is no such older series, the creation of a *b, d, g* series causes no difficulties. If there is, the old patterning of sounds can be kept intact only by shifting the old *b, d, g* sounds in some way. They may become aspirated to *bh, dh, gh* or spirantized or nasalized or they may develop any other peculiarity that keeps them intact as a series and serves to differentiate them from other series. And this sort of shifting about without loss of pattern, or with a minimum loss of it, is probably the most important tendency in the history of speech sounds. Phonetic leveling and "splitting" counteract it to some extent but, on the whole, it remains the central unconscious regulator of the course and speed of sound changes.

The desire to hold on to a pattern, the tendency to "correct" a disturbance by an elaborate chain of supplementary changes, often spread over centuries or even millennia—these psychic undercurrents of language are exceedingly difficult to understand in terms of individual psychology, though there can be no denial of their historical reality. What is the primary cause of the un-

settling of a phonetic pattern and what is the cumulative force that selects these or those particular variations of the individual on which to float the pattern readjustments we hardly know. Many linguistic students have made the fatal error of thinking of sound change as a quasi-physiological instead of as a strictly psychological phenomenon, or they have tried to dispose of the problem by bandying such catchwords as "the tendency to increased ease of articulation" or "the cumulative result of faulty perception" (on the part of children, say, in learning to speak). These easy explanations will not do. "Ease of articulation" may enter in as a factor, but it is a rather subjective concept at best. Indians find hopelessly difficult sounds and sound combinations that are simple to us; one language encourages a phonetic drift that another does everything to fight. "Faulty perception" does not explain that impressive drift in speech sounds which I have insisted upon. It is much better to admit that we do not yet understand the primary cause or causes of the slow drift in phonetics, though we can frequently point to contributing factors. It is likely that we shall not advance seriously until we study the intuitional bases of speech. How can we understand the nature of the drift that frays and reforms phonetic patterns when we have never thought of studying sound patterning as such and the "weights" and psychic relations of the single elements (the individual sounds) in these patterns?

Every linguist knows that phonetic change is frequently followed by morphological rearrangements, but he is apt to assume that morphology exercises little or no influence on the course of phonetic history. I am inclined to believe that our present tendency to isolate phonetics and grammar as mutually irrelevant

linguistic provinces is unfortunate. There are likely to be fundamental relations between them and their respective histories that we do not yet fully grasp. After all, if speech sounds exist merely because they are the symbolic carriers of significant concepts and groupings of concepts, why may not a strong drift or a permanent feature in the conceptual sphere exercise a furthering or retarding influence on the phonetic drift? I believe that such influences may be demonstrated and that they deserve far more careful study than they have received.

This brings us back to our unanswered question: How is it that both English and German developed the curious alternation of unmodified vowel in the singular (*foot*, *Fuss*) and modified vowel in the plural (*feet*, *Füsse*)? Was the pre-Anglo-Saxon alternation of *fo*t and *fö*ti an absolutely mechanical matter, without other than incidental morphological interest? It is always so represented, and, indeed, all the external facts support such a view. The change from *o* to *ö*, later *e*, is by no means peculiar to the plural. It is found also in the dative singular (*fet*), for it too goes back to an older *foti*. Moreover, *fet* of the plural applies only to the nominative and accusative; the genitive has *fota*, the dative *fo*tum. Only centuries later was the alternation of *o* and *e* reinterpreted as a means of distinguishing number; *o* was generalized for the singular, *e* for the plural. Only when this reassignment of forms took place¹⁶ was the modern symbolic value of the *foot*: *feet* alternation clearly established. Again, we must not forget that *o* was modified to *ö* (*e*) in all manner of other grammatical and derivative formations. Thus, a pre-Anglo-Saxon *hohan* (later *hon*) "to hang" corresponded

¹⁶ A type of adjustment generally referred to as "analogical leveling."

to a *höhith*, *hehith* (later *hehth*) "hangs"; to *dom* "doom," *blod* "blood," and *fod* "food" corresponded the verbal derivatives *dömian* (later *deman*) "to deem," *blödian* (later *bledan*) "to bleed," and *födian* (later *fedan*) "to feed." All this seems to point to the purely mechanical nature of the modification of *o* to *ö* to *e*. So many unrelated functions were ultimately served by the vocalic change that we cannot believe that it was motivated by any one of them.

The German facts are entirely analogous. Only later in the history of the language was the vocalic alternation made significant for number. And yet consider the following facts. The change of *foti* to *föti* antedated that of *föti* to *föte*, *föt*. This may be looked upon as a "lucky accident," for if *foti* had become *fote*, *fot* before the *-i* had had the chance to exert a retroactive influence on the *o*, there would have been no difference between the singular and the plural. This would have been anomalous in Anglo-Saxon for a masculine noun. But was the sequence of phonetic changes an "accident"? Consider two further facts. All the Germanic languages were familiar with vocalic change as possessed of functional significance. Alternations like *sing*, *sang*, *sung* (Anglo-Saxon *singan*, *sang*, *sungen*) were ingrained in the linguistic consciousness. Further, the tendency toward the weakening of final syllables was very strong even then and had been manifesting itself in one way and another for centuries. I believe that these further facts help us to understand the actual sequence of phonetic changes. We may go so far as to say that the *o* (and *u*) could afford to stay the change to *ö* (and *ü*) until the destructive drift had advanced to the point where failure to modify the vowel would soon result in morphological embarrassment. At a cer-

tain moment the *-i* ending of the plural (and analogous endings with *i* in other formations) was felt to be too weak to quite bear its functional burden. The unconscious Anglo-Saxon mind, if I may be allowed a somewhat summary way of putting the complex facts, was glad of the opportunity afforded by certain individual variations, until then automatically canceled out, to have some share of the burden thrown on them. These particular variations won through because they so beautifully allowed the general phonetic drift to take its course without unsettling the morphological contours of the language. And the presence of symbolic variation (*sing, sang, sung*) acted as an attracting force on the rise of a new variation of similar character. All these factors were equally true of the German vocalic shift. Owing to the fact that the destructive phonetic drift was proceeding at a slower rate in German than in English, the preservative change of *uo* to *üe* (*u* to *ü*) did not need to set in until 300 years or more after the analogous English change. Nor did it. And this is to my mind a highly significant fact. Phonetic changes may sometimes be unconsciously encouraged in order to keep intact the psychological spaces between words and word forms. The general drift seizes upon those individual sound variations that help to preserve the morphological balance or to lead to the new balance that the language is striving for.

I would suggest, then, that phonetic change is compacted of at least three basic strands: (1) A general drift in one direction, concerning the nature of which we know almost nothing but which may be suspected to be of prevailingly dynamic character (tendencies, e.g., to greater or less stress, greater or less voicing of elements); (2) A readjusting tendency which aims to pre-

serve or restore the fundamental phonetic pattern of the language; (3) A preservative tendency which sets in when a too serious morphological unsettlement is threatened by the main drift. I do not imagine for a moment that it is always possible to separate these strands or that this purely schematic statement does justice to the complex forces that guide the phonetic drift. The phonetic pattern of a language is not invariable, but it changes far less readily than the sounds that compose it. Every phonetic element that it possesses may change radically and yet the pattern remain unaffected. It would be absurd to claim that our present English pattern is identical with the old Indo-European one, yet it is impressive to note that even at this late day the English series of initial consonants:

<i>p</i>	<i>t</i>	<i>k</i>
<i>b</i>	<i>d</i>	<i>g</i>
<i>f</i>	<i>th</i>	<i>h</i>

corresponds point for point to the Sanskrit series:

<i>b</i>	<i>d</i>	<i>g</i>
<i>bh</i>	<i>dh</i>	<i>gh</i>
<i>p</i>	<i>t</i>	<i>k</i>

The relation between phonetic pattern and individual sound is roughly parallel to that which obtains between the morphologic type of a language and one of its specific morphological features. Both phonetic pattern and fundamental type are exceedingly conservative, all superficial appearances to the contrary notwithstanding. Which is more so we cannot say. I suspect that they hang together in a way that we cannot at present quite understand.

If all the phonetic changes brought about by the phonetic drift were allowed to stand, it is probable that

most languages would present such irregularities of morphological contour as to lose touch with their formal ground-plan. Sound changes work mechanically. Hence they are likely to affect a whole morphological group here—this does not matter—, only part of a morphological group there—and this may be disturbing. Thus, the old Anglo-Saxon paradigm:

	Sing.	Plur.
N. Ac.	<i>foṭ</i>	<i>fet</i> (older <i>foti</i>)
G.	<i>fotes</i>	<i>fota</i>
D.	<i>fet</i> (older <i>foti</i>)	<i>fotum</i>

could not long stand unmodified. The *o*—*e* alternation was welcome in so far as it roughly distinguished the singular from the plural. The dative singular *fet*, however, though justified historically, was soon felt to be an intrusive feature. The analogy of simpler and more numerous represented paradigms created the form *fote* (compare, e.g., *fisc* “fish,” dative singular *fisce*). *Fet* as a dative becomes obsolete. The singular now had *o* throughout. But this very fact made the genitive and dative *o*-forms of the plural seem out of place. The nominative and accusative *fet* was naturally far more frequently in use than were the corresponding forms of the genitive and dative. These, in the end, could not but follow the analogy of *fet*. At the very beginning of the Middle English period, therefore, we find that the old paradigm has yielded to a more regular one:

	Sing.	Plur.
N. Ac.	* <i>foṭ</i>	* <i>fet</i>
G.	* <i>fotes</i>	<i>fete</i>
D.	<i>fote</i>	<i>feten</i>

The starred forms are the old nucleus around which the new paradigm is built. The unstarred forms are not

genealogical kin of their formal prototypes. They are analogical replacements.

The history of the English language teems with such levelings or extensions. *Elder* and *eldest* were at one time the only possible comparative and superlative forms of *old* (compare German *alt*, *älter*, *der älteste*; the vowel following the *old-*, *alt-* was originally an *i*, which modified the quality of the stem vowel). The general analogy of the vast majority of English adjectives, however, has caused the replacement of the forms *elder* and *eldest* by the forms with unmodified vowel, *older* and *oldest*. *Elder* and *eldest* survive only as somewhat archaic terms for the older and oldest brother or sister. This illustrates the tendency for words that are psychologically disconnected from their etymological or formal group to preserve traces of phonetic laws that have otherwise left no recognizable trace or to preserve a vestige of a morphological process that has long lost its vitality. A careful study of these survivals or atrophied forms is not without value for the reconstruction of the earlier history of a language or for suggestive hints as to its remoter affiliations.

Analogy may not only refashion forms within the confines of a related cluster of forms (a "paradigm") but may extend its influence far beyond. Of a number of functionally equivalent elements, for instance, only one may survive, the rest yielding to its constantly widening influence. This is what happened with the English -s plural. Originally confined to a particular class of masculines, though an important class, the -s plural was gradually generalized for all nouns but a mere handful that still illustrate plural types now all but extinct (*foot: feet*, *goose: geese*, *tooth: teeth*, *mouse: mice*, *louse: lice*; *ox: oxen*; *child: children*; *sheep: sheep*, *deer: deer*).

Thus analogy not only regularizes irregularities that have come in the wake of phonetic processes but introduces disturbances, generally in favor of greater simplicity or regularity, in a long established system of forms. These analogical adjustments are practically always symptoms of the general morphological drift of the language.

A morphological feature that appears as the incidental consequence of a phonetic process, like the English plural with modified vowel, may spread by analogy no less readily than old features that owe their origin to other than phonetic causes. Once the *e*-vowel of Middle English *fet* had become confined to the plural, there was no theoretical reason why alternations of the type *fot: fet* and *mus: mis* might not have become established as a productive type of number distinction in the noun. As a matter of fact, it did not so become established. The *fot: fet* type of plural secured but a momentary foothold. It was swept into being by one of the surface drifts of the language, to be swept aside in the Middle English period by the more powerful drift toward the use of simple distinctive forms. It was too late in the day for our language to be seriously interested in such pretty symbolisms as *foot: feet*. What examples of the type arose legitimately, in other words *via* purely phonetic processes, were tolerated for a time, but the type as such never had a serious future.

It was different in German. The whole series of phonetic changes comprised under the term "umlaut," of which *u: ü* and *au: oi* (written *äu*) are but specific examples, struck the German language at a time when the general drift to morphological simplification was not so strong but that the resulting formal types (e.g., *Fuss: Füße*; *fallen* "to fall": *fällen* "to fell"; *Horn* "horn":

Gehörne "group of horns"; *Haus* "house"; *Häuslein* "little house") could keep themselves intact and even extend to forms that did not legitimately come within their sphere of influence. "Umlaut" is still a very live symbolic process in German, possibly more alive to-day than in medieval times. Such analogical plurals as *Baum* "tree": *Bäume* (contrast Middle High German *boum*: *boume*) and derivatives as *lachen* "to laugh": *Gelächter* "laughter" (contrast Middle High German *gelach*) show that vocalic mutation has won through to the status of a productive morphologic process. Some of the dialects have even gone further than standard German, at least in certain respects. In Yiddish,¹⁷ for instance, "umlaut" plurals have been formed where there are no Middle High German prototypes or modern literary parallels, e.g., *tog* "day": *teg* "days" (but German *Tag*: *Tage*) on the analogy of *gast* "guest": *gest* "guests" (German *Gast*: *Gäste*), *shuch*¹⁸ "shoe": *shich* "shoes" (but German *Schuh*: *Schuhe*) on the analogy of *fus* "foot": *fis* "feet." It is possible that "umlaut" will run its course and cease to operate as a live functional process in German, but that time is still distant. Meanwhile all consciousness of the merely phonetic nature of "umlaut" vanished centuries ago. It is now a strictly morphological process, not in the least a mechanical phonetic adjustment. We have in it a splendid example of how a simple phonetic law, meaningless in itself, may eventually color or transform large reaches of the morphology of a language.

¹⁷ Isolated from other German dialects in the late fifteenth and early sixteenth centuries. It is therefore a good test for gauging the strength of the tendency to "umlaut," particularly as it has developed a strong drift towards analytic methods,

¹⁸ *Ch* as in German *Buch*.