## OTTO JESPERSEN

# EFFICIENCY IN LINGUISTIC CHANGE 

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BY<br>OTTO JESPERSEN



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## 1. Evolution and Progress.

1.1. In my youth I was, like so many of my contemporaries, under the spell of what Sapir (Language 130) somewhat unjustly termed 'the evolutionary prejudice', Darwin's and Spencer's theories. Into the latter I was first initiated through the philosophical lectures of Professor S. Heegaard during my freshman's year (1877-78). It stamped the whole of my intellectual outlook, and when I first began a serious study of philology I tried to apply this theory to the history of language, though I soon saw that Spencer's famous formulas of evolution (integration, heterogeneity, definiteness) could not be strictly and dogmatically applicable to language. I took "Progress in Language" to mean something totally different from what Spencer spoke of in the linguistic paragraphs of his essay "Progress, its Law and Cause" (Essays, vol. 1): he there speaks exclusively of a greater and greater heterogeneityan increasing number of parts of speech, of words to express the most varied ideas, of languages and dialects produced by the splitting up of one uniform language. I took progress in the more popular sense of advance in usefulness, which Spencer here totally neglects.

Still I had some points of contact with Herbert Spencer. I had early been impressed by his essay on "the Philosophy of Style" (in Essays, vol. 2). In this he says that the best
style is that which pays most regard to the economy of the recipient's attention. "Other things equal, the force of all verbal forms and arrangements is great, in proportion as the time and mental effort they demand from the recipient is small." Again, "there is an expenditure of mental energy in the mere act of listening to verbal articulations, or in that silent repetition of those which goes on in readingthe perceptive faculties must be in active exercise to identify every syllable", etc.

But in examining the laws of style Spencer necessarily speaks of the hearer (recipient) only and says nothing about the speaker (producer). Now I found that in valuation of a language, or a linguistic expression, both sides should be taken into consideration: the best is what with a minimum of effort on the part of the speaker produces a maximum of effect in the hearer. This is the substance of my essay "Fremskridt i sproget" (1891), which formed an introduction to my thesis "Studier over engelske kasus", and was expanded in English in "Progress in Language" (1894) and still more so in "Language" (1922).

When some years after the first appearance of my theory W. Ostwald began the publication of his philosophy of energetics, I recognized in his ideas the same point of view that I had already applied to language: I found in this coincidence a strong argument in favour of my views (see "Energetik der sprache" (1914), reprinted in "Linguistica").
"Survival of the fittest"-this is the ingenious watchword invented by Herbert Spencer to explain what Darwin understood by "natural selection": those individuals of a species are preserved that are best adapted for their environments. Can this be applied to language? Evidently not to
language as wholes: which of these are preserved and which are doomed to extinction is determined by other considerations than the intrinsic perfection of their structure or the reverse: here wars and political conditions are generally decisive. But within a language we must admit the truth of the slogan: those particular traits of a language which are best adapted to their purpose tend to be preserved at the cost of others which do not answer the linguistic purpose so well. This will be demonstrated in many particulars of the following disquisition.
1.2. When I began writing on language, the prevalent theory was this: language had begun with inflexible roots, some of these in course of time became subordinate grammatical implements which were first agglutinated to and eventually fused with the more substantial elements. In this way was achieved the development of inflexional languages such as primitive Aryan (Indo-European, exemplified in Sanskrit, Greek and Latin); here the high-water mark was attained, and since then we witness only decay, degeneracy, and destruction of the beautiful structures of these old languages. To this I objected, trying to show that viewed from the point of view of human energetics so far from being retrogressive the tendency in historical times has on the whole been a progressive one.

Though it is possible that in my endeavour to refute old theories I paid too little attention to those changes that are not beneficial, I never maintained that all linguistic changes in all languages and at all times made for progress; I never was an "optimist à la Pangloss", but I still think that I was right in saying that on the whole the average development was progressive and that mankind has benefited by
this evolution. (See the detailed exposition in Lang., p. 319 -366.$)$

In the summary found ib. p. 364, I said that the superiority of the modern Aryan languages as compared with the older stages manifests itself in the following points:
(1) The forms are generally shorter, thus involving less muscular exertion and requiring less time for their enunciation.
(2) There are not so many of them to burden the memory.
(3) Their formation is much more regular.
(4) Their syntactic use also presents fewer irregularities.
(5) Their more analytic and abstract character facilitates expression by rendering possible a great many combinations and constructions which were formerly impossible and unidiomatic.
(6) The clumsy repetitions known under the name of concord have become superfluous.
(7) A clear and unambiguous understanding is secured through a regular word-order.

Each of these points had in the preceding pages been fully documented by typical examples; no. (2), for instance, through reference to the chapter in "Progress" in which the case system of OE and ModE had been tabulated in the same way, filling seven and two pages respectively. With regard to (3) I pointed out the very important consideration that when we look at the actual facts we see that anomaly and flexion go invariably together (Lang. 232): it is thus wrong to say that "the Aryan inflexions were once more numerous and at the same time more distinct and regular,"" as Sweet says (Collected Papers 68).

These chapters in my book have never been refuted, either as a whole or in detail. Most subsequent writers on language simply disregard the question of progress or retrogression, or even mention it as lying outside the sphere of scientific linguistics.

In reading many books on the history of language one gets the impression that the history of languages is nothing but a purposeless fluttering hither and thither. I tried, and shall again in this treatise try to show that a great many changes manifest a purpose, conscious or unconscious, to better existing conditions, and that some changes, though apparently detrimental, may, if summed up, in the long run prove beneficial and make for progress. People have sometimes blundered into improving their mother-tongue.
1.3. The only two writers, as far as I know, who after me have dealt at some length with the question of progress in language are Charles Bally and J. Vendryes. The former discusses it in Le Langage et la Vie, 1st ed. 1913 (thus nineteen years after Progress), 2nd ed. 1926 (thus three years after Language). He has no difficulty in showing that language has not attained, and on account of the multiplicity of practical life probably never will attain, the complete logical ideal of univocité-the same idea always expressed by the same iorm, and the same form always meaning the same thing-and he goes on to examine the relation between synthesis and analysis with examples of their mutually replacing each other so that advance is a pure illusion: it is six of one and half a dozen of the other; the whole linguistic development is made up of rhythmic ups and downs. He mentions neither my previous work nor my criticism of his 1st edition. His treatment is unsatisfactory
because he does not compare the structure of earlier and later stages of the same language as wholes, as I had done in the chapter mentioned above (1.2), and because he does not see the importance of the point of view of energetics, the relation between the output of energy and the result attained.
J. Vendryes in the last chapter of Le Langage (1921) deals with "le progrès du langage". But though he warns against "une confusion fâcheuse entre la langue littéraire et la langue tout court" he does not seem himself to have avoided this confusion. His main result is that on the whole gains and losses counterbalance one another very nearly: everything depends on the hand that shakes the instrument. He no more than Bally has seen the importance of energetics, nor does he compare two stages of one and the same language as wholes. Most of his chapter does not concern us in this connexion.
1.4. In a very short chapter of his admirable book The Making of English Henry Bradley speaks of "Profit and Loss". He turns against some extreme optimists who think that in the evolution of language "everything happens for the best, and that English in particular has lost nothing, at least so far as its grammar is concerned, that would have been worth keeping'’. But who are these optimists? As already remarked, I myself never said that everything happened for the best. Bradley says that in writing English special care and ingenuity are often required to avoid falling into ambiguities-but is not that true of other languages as well? In colloquial English there are some abbreviations which sometimes occasion inconvenience by their doubtful meaning: thus he's may be either 'he is'
or 'he has', and I'd may be either 'I had' or 'I would'but certainly in nearly every case the form of the following verb will resolve any doubt. Still, Bradley says that English has gained by many additions to its grammatical resources and by the disappearance of superfluous inflexions as well as by the reduction of those which remain to mere consonantal suffixes; this has greatly increased the capacity for vigorous condensation. English thus has the peculiar advantage of a noiseless grammatical machinery, and further the ability of stressing the auxiliary as in 'I did live there' and of using the auxiliary by itself as in 'Yes, I do,' 'it certainly will not.' I think 'that in spite of his cautious expressions his few pages on the subject justify me in enlisting the eminent late scholar among those who on essential points agree with my views on progress in English.
G. Cederschiöld's paper Framsteg i språket (1897) reprinted in Om kvinnospråk och andra ämnen (1900), fully agrees with my points of view. So does E. H. Sturtevant in Linguistic Change (1917), p. 176.
1.5. In this treatise I shall not repeat the substance of what I said in Progress and Language, but merely in detail examine some points in which the progressive tendency manifests itself in various ways. In thus taking up some related strands and trying to weave them into a new pattern I am afraid that readers of my other books will here and there recognize ideas and examples they have seen elsewhere, but as they are given here in a new setting and for a different purpose I hope I may be forgiven for such unavoidable repetitions.

## 2. Language. Change.

2.1. Language is activity, chiefly social activity undertaken in order to get into touch with other individuals and communicate to them one's thoughts, feelings and will. On other social purposes see below, ch. 10. Sometimes language may be used simply to give vent to one's feelings, or even to make one's ideas clear to oneself, thus especially in silent soliloquy. But, as remarked, the main purpose of language is communication with other people.
2.2. A speaking individual is at any moment in his speech obliged to make a choice from among a variety of expressions that his own language, i. e. the collective habits of the community to which he belongs, places at his disposal and which he retains in his memory. He is, of course, seldom clearly conscious of this selective process, but it is nevertheless a fact. He has to decide for the moment if he is to use the most familiar, natural, everyday expression, or if he is to use a more literary, solemn, stilted, or even poetical style. He chooses out of a set of synonyms that which seems to him the most adequate: big, large, extensive, enormous, etc., or loves, likes, is fond of, prefers, etc. What details is he to include, and what is he to leave to the imagination of his audience? Is he to make a direct assertion or to use a rhetorical or ironic question? Will it be best to speak very loud, using a very distinct and pointed, emphatic pronunciation, or will a careless, inattentive, or even slovenly pronunciation do for the moment? Is a severe, rough, or a mild, insinuating tone to be employed? 'The same, or nearly the same, idea can thus be brought to the consciousness of one's hearer in a variety of ways: language is a multifarious world.

What is here said of speaking naturally applies mutatis mutandis to written exposition as well, where a man has to make his choice between different styles, from the most elaborate to the most 'telegraphic' way of expressing himself; within each he has the same choice of words and constructions as in talking.
2.3. Speech is here taken in the strict, most concrete sense of a momentary act of one individual. Ferdinand de Saussure was the first to distinguish sharply between parole and langue. I criticized part of his view in Mank. p. 11 ff ., chiefly because he established a gulf between the two and said that the individual was absolute master of his speech, but was powerless with regard to his language. The distinction has since then been elaboratedly treated by Alan H. Gardiner, see The Theory of Speech and Language (1932) and his paper at the Rome Congress (Atti del III Congresso Intern. dei Linguisti, p. 345 ff .), see also his reply to criticisms in ESts 19.58 ff .

The following remarks form the substance of what I said in the discussion in Rome.

We have a whole gradation, from the most concrete to the most abstract notion, cf. in another domain: one particular cruel act of one individual tiger-the cruel habits of the same tiger - cruelty as a characteristic trait of tigers as a species. In language we have:
(1) Speech.
(2) The whole of one individual's language, his vocabulary, intonation, etc.
(3) The manner of expression common to him and his set.
(4) The dialect of his parish, town, or county.
(5) His mother-tongue as comprising all the various local dialects of one country or one nation. In the case of English we may even distinguish (5a) the language of Great Britain, (5b) that of the British Empire, (5c) that of the United States, the three making up together a still higher abstraction, "English" as a whole.
(6) The power of using language common to all mankind, what Saussure called le langage as distinct from la langue.

It is a simple consequence of our definition that an isolated word, as we find it in a dictionary, belongs to language only; it is an abstraction; in speech it is found only in connexion with other words. This is really also the case when one word makes up a whole sentence, because other elements are understood from the context or it may be from the whole situation, as in answers: "Who said that? - Mother" "When did she say it? - Yesterday," - and in retorts: "If I were rich enough ... Yes, if!" | "Splendid!"

As developed in PhilGr. 64 ff ., it is characteristic of proper names such as John that while in language, in a dictionary for instance, they are completely void of meaning, they are pregnant of the most comprehensive meaning when actually employed in speech, where they call up each time a whole complex of associations.
2.4. That language changes is a fact which no one can be blind to who reads a page of Beowulf, of Chaucer, of Shakespeare, and compares it with the speech of his nextdoor neighbour. But why is it constantly changing? If we are not content with the general answer that everything
human changes, and that London and the ways of its inhabitants are now necessarily different from what they were centuries ago, we must look for special causes in the very nature of a language. These are partly already hinted at in the definition just given, and lie partly in the fact that language is not inherited like the process of digestion, etc., but must be learnt afresh by each individual through imitation-a child's imitation of his parents and playfellows and a grown-up's imitation of his contemporaries. The imitation is never perfect in every respect, and new situations and wants constantly force a speaker to say something which he has never heard or said before in exactly the same way.

It is evident that in order to be introduced into any language an innovation must first occur in speech: it may be used by one individual and be accepted by his fellows, or it may, as is often the case, spring up independently in the speech of several individuals belonging to the same nation.
2.5. In linguistic changes we see the constant interplay of two opposite tendencies, one of an individual, and the other of a social character, one towards ease and the other towards distinctness.

The former is the tendency to take things easy and to follow the line of least resistance-to say it bluntly, an outcome of human indolence or laziness. The desire to save time and trouble leads to slack and slovenly articulation, which in extreme cases descends to mere murmuring, and in another field to a slipshod style, throwing out vague hints and indefinite suggestions, thus implying rather than expressing.

The opposite tendency is an effort to be clearly and precisely understood, and to make as vivid and convincing an impression on the hearer as possible; each articulation is therefore made slowly and distinctly, and great exertion is made to choose the most lucid and forcible expression ('le mot propre’). In extreme cases this may lead to pompousness and over-emphasis.

If the former tendency is dissolving or subversive, the latter is on the whole conservative and tends to keep alive the traditional norm. But it is not strictly correct when it is sometimes said (e. g. by Gabelentz) that any innovation is an infringement of the norm or laws of the language in question: when an English speaker for the first time forms a plural in $-s$ of a brand-new word, he introduces something absolutely new, but does so in strict conformity with the laws of the English language.

On the whole question of causes of changes see the detailed exposition in Lang. chs. XIV and XV. Cp. also what is said below (ch. 11) on fashion.
2.6. The first of these tendencies naturally leads to greater ease. But the question of phonetic ease is more complicated than it would seem at the first blush. Sapir and others say that the feeling of ease is subjective: what to us seems a very easy articulation is very difficult indeed to an Indian and vice versa. With regard to isolated articulations they are perfectly right, cf. also what Verner and myself say about difficulties of articulation in Lang. 262 f . Greater muscular exertion is not decisive: it requires less effort to chip wood than to operate for cataract. Is a stop like $[t, d, k, g]$ easier or more difficult than the corresponding fricatives $[\delta, \gamma]$ ? That may be contested in
abstracto. Children learning their language evidently find the stops easier. But when the stops pass into the fricatives as in Dan. bade, bage, we have a case of assimilation, and in this intervocalic position the new open consonant is no doubt easier than the stop. All assimilations make for greater ease in that position: [m, l, r] are not in themselves easier than [n], yet Lat. impono, illegalis, irrationalis are easier than the supposed original forms with in $+p, l, r$. So is handkerchief with [hæŋk] than with [hændk]. All droppings of consonants also make for phonetic ease (many of these may be viewed as assimilations), thus [g] after $[\mathrm{y}]$ in king, song, etc., $w$ and $k$ in wrong, knight, etc. Here there is nothing subjective in the feeling of greater ease. Thus also, I think, when $i a$, ua in two syllables in rapid pronunciation become one syllable [ia, ja, ura, wa].

Apart from purely phonetic change it must be recognized that greater ease to everybody concerned is obtained by many morphological changes, as when the inflexional system is simplified and made more regular, think e. g. of the uniform development of the definite article the, the spreading of $-s$ as mark of the plural, the whole simplification of the case-system in substantives and adjectives, etc.
2.7. The opposite tendency is seen in speech when one feels that one has not been understood. The other person may ask "What?" or "I beg your pardon" and one therefore has to repeat one's words more distinctly: "I said 'imminent', not 'eminent'" with a clearly marked vowel, or "increase, not 'decrease" with the stress shifted on to the distinctive syllable. Or one may choose to repeat the same idea in different words altogether.

Even apart from such more or less altered repetitions
the desire to be distinctly understood may show itself in unusually protracted long vowels and consonants. Many double consonants in various languages evidently owe their appearance to the desire for emphasis. Under the influence of strong emotion Eng. [ju*] may be made into [i*u•] (Lang. 277); in novels written e. g. bee-yutiful; cf. also the emphatic pronunciations represented in tree-mendous, ber-luddy. When splendid is not felt to be strong enough, it is colloquially expanded into splendidious or splendiferous. Now and then long "mouth-filling" epithets may be desirable. Sometimes also a speaker or writer may be afraid that his audience will not understand something unless they get it hammered into their heads: for fear of a too concise style he may therefore fall into the opposite extreme, prolixity.
2.8. In course of time a pronunciation called forth by the desire to be clearly understood may become a fixed feature of the language in question. Thus the fuller forms ever, never, over, on, have been practically everywhere substituted for the formerly very frequent forms without $v$ or $n$ : e're, ne're, o're, $a$, which were liable to misunderstandings (MEG I 2.533). With regard to stress see MEG I ch. $V$ on value-stress and contrast-stress, especially 5.55. Thus the distinction between pairs like lessor [le'so.a] and lessee [le'si'] has become firmly established, and a stressed re has become a much-used prefix in such formations as re-cover as distinct from the older recover. English superlatives also offer an example of the influence of a care for distinctiveness. In Elizabethan times they were often formed in -st with dropping of the unstressed vowel in accordance with the ordinary sound-laws: kind'st, stern'st, sweet'st,
strict'st. But from the 17 th century a reaction set in and the modern forms with a distinct vowel -est have prevailed, even after a vowel: truest, etc.

As a rule short words are preferred to longer ones, but at times they may be indistinct, and longer words may be substituted. We see this in the Romanic languages, which have discarded such Latin words as vis, spes, res in favour of fortia (Fr. force, It forza); Fr. espoir, It. speranza; cosa, Fr. chose. (The acc. rem survives only in Fr. rien in a negative sense). Dies became di, which was too short except in compounds like Fr. midi and the names of the days of the week; in Sp. and Port. it was expanded into dia, in Fr. and It. the fuller diurnum took its place: jour, giorno. Instead of avis a diminutive was used: Fr. oiseau, It. uccello, or the meaning of passer 'sparrow' was generalized: Sp. pajaro, Port. passaro.
2.9. The two tendencies often lead syntactically to two parallel expressions for the same idea, according as economy of speech or redundancy (over-distinctiveness) prevails. Thus with regard to the person of the verb: Lat. canto expresses it once, ego canto twice, which generally takes place only for the sake of emphasis or contrast. In the same way still in Italian. In French, on the other hand, it is necessary to add the pronoun because the verb form of je chante, tu chantes, il chante is phonetically identical; chantons indicates the first person plural unmistakably, but as this form has been utilized for the imperative, it is therefore necessary in the indicative to add the pronoun: nous chantons. In Gothic conditions are essentially as in Latin, but in the modern Gothonic languages a pronoun is always required, even where the verbal form shows the person,
as in G. du singst, E. he sings, in which the person is doubly indicated.

Or take sequence in time. This may be implied, i. e. not expressly stated: 'veni vidi vici | when he came back from America he settled in Bristol' $(=$ on his return; but no sequence is implied in 'when he came back from America he was a poor man' $=$ at his return) | 'when he heard this he left the room | he stood silent for a long time. Now he suddenly exclaimed'...

Note the four expressions:
(a) Hearing this he left the room
(b) After hearing this he left the room
(c) Having heard this he left the room
(d) After having heard this he left the room.

In (a) the sequence is implied, in (b) and (c) expressed once, in (d) twice.

To (b) and (c) correspond the expressions in clauses: 'postquam hoc audivit $\mid$ after he heard this (as soon as he heard this, the moment he heard this), he left the room': the sequence expressed once.

Thus also in two main sentences: He had stood silent for a long time. Then he suddenly exclaimed . . .

To (d) corresponds: 'after he had heard this (as soon as he had heard this, the moment he had heard this), he left the room'. This has now become the usual expression when a conjunction is used.

While the use of the pluperfect is here natural enough to express the before-past time, the conjunction before would seem naturally to require the simple preterit: he died (had died) before I fired the shot,-but the pluperfect may also be used, I suppose originally from the analogy
of the after-construction: 'he turned round before he had seen me'. While both after and the pluperfect draw in the same direction: to the left in the line
$\longrightarrow$ now,
before draws to the right and the pluperfect to the left.
A young student calls my attention to a distinction here: 'He went to his seat before I spoke to him' implies that I did speak to him, while 'He went to his seat before I had spoken to him' leaves the possibility open that I did not speak to him. 'He came before the meeting began' (just in time to join me for a drink before the opening speech) but 'He came before the meeting had begun' opens the possibility of the continuation 'just in time to have it cancelled'. I suspect that this is somehow due to the imaginative use of had = 'would have'. Note also "He always leaves the room before the clock strikes / has struck".

With regard to the "before-future" time we have the usual shorter expressions we shall go out when the rain stops or when the rain has stopped, and the pedantic, in which futurity is expressly stated: when the rain shall have stopped.

On the various tense-relations and economy in their expression see many quotations in MEG IV 2.3(3), 5.6(1), $5.6(3), 6.1,7.8,22.2(1), 22.2(7)$.
2.10. If language is defined (2.1) as purposeful activity, it follows that the question must naturally be raised if a given language or a given linguistic fact answers its purpose, and if an observed change in a language can be called beneficial or not. This is the main theme of this little book. Further the question may be raised: Are such changes as may be termed beneficial brought about deliberately, or can they be thus produced?

It is evident that the immediate purpose in speaking is in nearly all cases merely to communicate with the hearer or hearers of the moment, and this is done without any conscious thought on how that purpose in carried out. But in rare instances a speaker, or more often a writer, may think about the value of some word or expression found in his ordinary language, and then he may try to improve it and thus to influence language. This is what is termed "art"' in my paper Nature and Art in Language (Lingst. p. 434 ff.). I shall revert to some instances of this in the following pages.

But it cannot be denied that such deliberate intention to influence one's mother-tongue is an exception: most changes are produced inadvertently, and yet they may aid to bring about something that may be called beneficial, i. e. progressive in the sense here indicated. Even a long cumulation through centuries of small changes, each of which is a deviation from the norm (a slip or blunder), may constitute a considerable gain to the language in question, c. g. indistinct pronunciations or droppings of final syllables which have led to the simple "noiseless", English flexional system.

Long after I had thought this out I was happy to find similar ideas in the late German linguistic philosopher A. Marty. O. Funke in his book Innere Sprachform (Reichenberg i. B. 1924) quotes from Marty some sentences which I try to translate: "Not only the first creator of a [linguistic] sign made gropingly a selection, but his fellows did the same, one more and another less, and only what pleased the whole community (kreis) and was definitely accepted by them became a relatively permanent part of their common language and a fixed habit. But this selection
of serviceable means of communication was completely planless. Everyone who contributed a fragment to the formation of a language was thinking only of the needs of the moment, and no one had any consciousness of the whole or of the final result or the functions of each component, still less of the method followed in the construction. In this sense the formation of a language was unconscious and unintentional."

## 3. Sound-laws.

3.1. When I began writing on linguistic questions the prevalent occupation of the leaders of the science was with sound-changes, which were reputed to obey 'blind' fatalistic sound-laws (phonetic laws): these were supposed to be purely destructive, breaking asunder the systematic structure of a language so that the irregularities caused by them had to be remedied by analogical formations. These two, sound-law and analogy, were thought between them to explain nearly everything in the development of languages.

That this description of the prevalent view is not exaggerated may be seen e. g. by a few quotations from a book printed as late as 1926: "Une langue est sans cesse rongée et menacée de ruine par l'action des lois phonétiques, qui, livrées à elles-mêmes, opéreraient avec une régularité fatale et désagrégeraient le système grammatical.... Heureusement l'analogie (c'est ainsi qu'on désigne la tendance inconsciente à conserver ou recréer ce que les lois phonétiques menacent ou détruisent) a peu à peu effacé ces différences", etc. (Bally, LV², p. 40-41). But Bally here does nothing but repeat his master F. de Saussure's words: "Le phénomène phonétique est un facteur de trouble... il contribue à relâcher les liens grammaticaux... Heureusement l'effet de ces transformations est contrebalancé par l'analogie", etc. (Cours de

Ling. gén. 1916, p. 227, 2. éd. 1922, p. 221). The same idea pervaded much of what was written in the 1880'es.

It cannot be said that this description of sound-changes ('sound-laws') as always destructive and splitting up forms that belong together, so that analogy has to step in to repair the damage, is a correct one, for besides such divergent changes we have convergent ones. Thus when in Scandinavian languages initial $p$ became $t$ (e.g. ting) and $z$ became $r$ (e. g. dagr), or when in English initial kn, gn, wr lost their first consonants (e. g. know, gnaw, wrong). If any damage is caused by such changes, it is the rise of homophones (e. g. know $=$ no, write $=$ rite ; cf. below 4.3 and 5) - but there analogy is of no use as a remedy.
3.2. Against the theory of the blind 'sound-laws' without exceptions I raised several objections in my very first linguistic paper (Zur lautgesetzfrage 1886, reprinted in Linguistica 1933). I called attention to the lessons to be drawn from children's speech, which had been neglected by the linguists of that date; but the most important contention I made was the emphasis I laid on the value point of view: what the speaker particularly wants that his audience should lay at heart, he will pronounce with special care and with strong stress on the most important parts of his utterance. An actor and a political speaker, who cannot expect to be interrupted by a "What did you say?", must articulate more distinctly than he who speaks to the circle of his familiars. Anyone will tend to slur over what to him, and presumably to his hearer, is of no real importance. I explained in this way the violent abbreviations found in insignificant greetings like (good) morning, German [na'mt] for guten abend, in French [sple] for s'il vous plaît,
and in titles like Spanish Usted from vuestra merced; Russian gosudar' 'master', 'sir' even sinks down to a mere [s], which in polite speech may be attached to nearly any word. Such irregular changes cannot, I said, be understood merely from the very frequent use of these words, but from the ease of understanding and from their worthlessness to speaker and hearer alike. We now also understand the existence of many double forms of the same word, one in more solemn and the other in more familiar language. Further we see that a normally weakly stressed syllable may acquire strong stress when for the sake of contrast it becomes the most important part of the word: German sowohl 'real als 'formal, etc. Nay, when we have double forms like French me and moi on account of different sentence stress, such stress in its turn depends on the different value attached to the word in different positions.
3.3. The same fundamental idea was many years later taken up and illustrated by a great many examples from various languages in W. Horn's book Sprachkörper und sprachfunktion (1921, 2nd ed. 1923). The title is not very well chosen, for what is function? What he really means is 'bedeutung und wortumfang'. He mentions incidentally my old paper; to my much fuller treatment in Language (1922) he later did full justice in a review in Beiblatt zur Anglia 1925. Horn's book was somewhat severely criticized by K. Luick (EStn 56 p. 185-205 and again ib. 58 p. 236 ff .), who rejects, partly perhaps with justice, some of Horn's explanations and is on the whole averse to ascribing a direct shortening of the 'sprachkörper' to its worthlessness. But Luick does not see that when in his own explanations he speaks of the effacing of the original meaning, e. g. in
composite place-names, and of the loss of stress, he indirectly asserts what he is out to deny, the influence of meaning on the phonetic development.
[On Horn's book see also Carl Karstien in Festschrift für Streitberg (1924), p. 399 ff.; O. Funke in Festgabe Karl Luick (1925), p. 102 ff.; E. Fraenkel IF 41 (1923), p. 393 ff. (on Baltic languages).]

Ed. Hermann's Lautgesetz und analogie (Göttingen 1931) also shows to what extent linguistic science has for 50 years been obsessed by the dualism indicated in its title. Hermann is much less anxious to tell us how he himself thinks that phonetic changes originate and work, than to show that none of the explanations hitherto proffered, whether correct or no, is capable of proving that soundlaws are without exceptions. But curiously enough among these theories he does not mention that of sound-changes being due to the tendency to make articulation easier. He does not explain how the great regularity we actually find in many cases has been brought about. Nor does his treatment of analogy give a fully satisfactory theory; but his book contains many interesting details.
3.4. A particularly important application of the principle of value, which had not been generally noticed, is found in the so-called end-laws (auslautsgesetze). Such special laws are dealt with in most books on sound-history. Comprehensive books on the subject are A. Walde, Die germanischen auslautsgesetze (1900) and R. Gauthiot, La fin de mot en indo-européen (1913). What is the ultimate reason for a special phonetic treatment of the end of words, different from that of the same sounds in the beginning or middle of words? In one of the chapters of my Phonetische grundfragen (1904, the chapter is reprinted in Lingst.
p. 193 ff .) I answered: what is essential to the understanding of a word is often already reached before one arrives at its end, which therefore is of comparatively little value; hence vowels are shortened and (or) made indistinct, often reduced to [a] or finally dropped, and final consonants may likewise disappear altogether.

Such slurrings of the endings of words are never purposely done in order to make a language better, but in the long run the summed-up result may benefit a language by making it shorter and its flexions simpler.
3.5. With such ordinary end-laws I now want to connect a series of phenomena which are not generally included in sound-history, viz. such violent abbreviations of words in which in familiar speech the beginning is sufficient to call forth the idea in the mind of the hearer: a great part of the word is therefore dropped as superfluous. We find such 'stump-words' in shortenings of Christian names like Di for Diana, Em for Emily, Fred for Frederick, Vic for Victoria, etc., and of family names like Mac for Macdonnell, MacDougal, etc., Dizz (Dizzy) for Disraeli, Beau for Beauclerc, Pen for Pendennis, Pop for Popjoy, Lab for Labouchère, Pam for Palmerston, Dan. Jesper for Jespersen, Lau for Laurits, Ras for Rasmus or Rasmussen.

Outside proper names we have such well-known stumpwords as cab(riolet), fad(aise), brig(antine), sov(ereign), undergrad(uate), zep(pelin), pram for perambulator, navvy for navigator, in other languages kilo(gram), auto(mobile), Fr. aristo(crate), réac(tionnaire), vélo(cipède), métro, ciné(ma, -matographe), German ober(kellner), etc., (Lang. p. 170).

An interesting international example where more and more elements have been left out of a name that was felt
to be too long and clumsy for a familiar object, is the name of the new instrument that in the beginning of the eighteenth century came up as a modification of the earlier cembalo and was first named clavicembalo col piano e forte: this was shortened into fortepiano or pianoforte ab. 1767; but the latter was reduced into piano; the earliest example of this in the NED is from 1803.
3.6. From my own language I may mention a few examples which present more than usual interest. An earwig is called ørentvist, the origin of which is no longer understood: it is from øren-tve-stjert, literally 'ear-two-tail' (dialectal Dan., Norw., Sw. have tvestjert), this was shortened because it was too long and contained three members (a two-member compound like vipstjert 'wagtail' is not shortened).

Danish has some clumsy numerals based on the vigesimal system, tresindstyve 60 'three times (ODan. sind) twenty', firsindstyve 80 'four times twenty', and with halv 'half' followed by the ordinal halvtredsindstyve 50, literally 'halfthird times twenty', halvfjerdsindstyve 70, halvfemsindstyve 90. These have been shortened into halvtreds 50, tres 60, halvfjerds 70, firs 80, halvfems 90, and similarly we say fyrre 40 for fyrretyve (in which tyve stands for 10 , tigjus, see below 6.3). But it is interesting to note that these stump-words were at first used only when strictly final (in pausa), as in han er halvfjerds, while the full forms had to be used if another word followed: halvfjerdsindstyve år, firsindstyve rigsdaler. This was the strict rule until 1875 , when the old monetary system (rigsdaler $=6$ mark à 16 skilling) was superseded by the new krone divided into 100 are; then people began to find it inconvenient to say always halvtredsindstyve øre, and used halvtreds øre instead,
and the custom spread to e.g. halvfjerds $\dot{a r}$, etc., which is still disliked by some people. The ordinals, in which -tyve is followed by -ende, still retain the full forms firsindstyvende, etc.

In recent years many Danes have proposed to give up the traditional names for the tens and to use instead toti, treti, firti, femti, sexti, syvti, otti, niti. This would certainly not only simplify the system, but also bring us nearer to our Norwegian and Swedish brethren. In cheques and postal orders these new numerals are often used alongside of the old ones. When the proposal was first made, Georg Brandes opposed it vigorously: the old ones were more picturesque and aesthetically preferable, he said. From our point of view of human energetics much may be said in favour of the old system, but (it should be observed) only with regard to the shortened forms, which are convenient in use and at once understandable without any mistake, though it is true that they are more difficult to learn. We shall see below in other numerals that a synthetic form may have advantages over an analytic one (6.3): cannot the same be said of tres in comparison with sexti, etc.?
3.7. While most of the shortenings here mentioned have been made more or less unintentionally, we have fully intentional creations in others, e.g. the official German terms for two of the horrors of our 'civilized' times, as Gestapo $=$ geheime staats-polizei, Stuka $=$ sturzkampfflieger. Cf. also Linguistica p. 441 : Dora and others from initial letters. College terms like lab(oratory), math(ematics) probably first began in writing.
3.8. It will easily be seen that such shortenings on the basis of the value theory are closely connected with the theory of ellipses generally, through which one leaves out what is (or is thought to be) unnecessary for the understanding of the whole. We meet with ellipses in many fields: a copper (coin or boiler) | a buttonhole (flower) St. Paul's (Cathedral) | we dined at Dr. Brown's (house) Will you go? I want to (go), but I can't (go) | I had two cups, but Mary (had) three (cups) | she is fourteen (years old), etc. etc. The subject is too enormous for me to take it up here.

It is evident that ellipses do not always strike out elements that would have been placed at the end of an utterance; many have been brought about by "prosiopesis", leaving out the beginning of an utterance, e. g. (I) thank you | (I am) sorry | (Do you) see?, etc., cf. e. g. MEG III ch. 11.

On ellipsis in general see also Brugmann, Vgl. Gramm. ${ }^{2}$ II. 1 p. 40 ff . But it is curious that Brugmann here quotes my paper on "subtraktionsdannelser", though it deals with something totally different, now termed "back-formations". Ellipsis is a linguistic reality, but some syntacticians misuse it to explain things which have nothing to do with it (ellipsomania).

## 4. Linguistic Imperfections.

4.1. The fundamental postulate on which my whole theory of language is based is this: speaking, even speaking one's mother tongue, is a kind of work which requires mental and physical exertion; hearing, i. e. understanding what is uttered, is equally something that requires mental and physical exertion. A lessening of this exertion must therefore be considered an advantage to the speaker and hearer respectively. Now, however, there are some people
who make light of this exertion and maintain that there is no labour involved in linguistic intercourse; "no error could be greater than that of thinking that the native speaker should have any difficulty in using the numerous forms found in his language" (Chr. Møller in Acta Jutlandica I, Aarhus 1929). The difficulties in German mentioned by Paul and Schuchardt (as quoted Lang. 325) have no existence so long as the speaker is allowed to speak his native dialect, but only if he tries to speak the standard language, for each individual learns only one norm perfectly, and in that even the most intricate flexional system offers no difficulty at all. Now, is this true? One might just as well say that walking requires no effort at all, once the child has learnt to walk, or that there is no difficulty to the grown-up person in writing by hand. The truth is that under normal conditions no one is conscious of effort in all these activities, but that they nevertheless require exertion. This is seen, e.g. when a person is under the influence of great quantities of strong alcohol, or is dangerously ill, or unusually tired: then his walk becomes unsteady, his writing indistinct and illegible, and his speech full of blunders in articulation, in the formation and correct use of flexional forms, and he is unable to express the simplest thoughts in a clear and intelligible way.
4.2. If this is not proof enough, I must ask the reader to consider such facts as these: The correct use of the German cases governed by prepositions is not learnt till after children have reached the school age (Clara u. W. Stern, Die Kindersprache 248). Germans hesitate whether to say mit Ihrem, or mit Ihrer fräulein tochter (Curme, Grammar ${ }^{2}$ p. 547 with many quotations). On the whole German books on "Sprach-
richtigkeit" (by Andresen and others) are much more full of grammatical things that are felt as difficult by the natives than similar books in English. Mauthner (Kritik der sprache 3.27) says that German genders are a torment not only to foreigners, but to natives as well: there is no German that with perfect certainty can tell the gender of all substantives, even Jakob Grimm did not know if one should say der euter or das euter; dictionaries require der ungestüm, but Schiller writes das ungestüm, etc. etc. Sütterlin (Werden und wesen der sprache 1913, p. 149) gives examples of German flexion and adds: "All this makes great claims on the memory not only of foreigners, but also of the natives, and it would perhaps be better to free the brain from this burden in favour of other and better activities." Gabelentz says (Die Sprachwissenschaft p. 257): "Our rich, profound mother-tongue is certainly not the most easily managed thing (das bequemste). It is so difficult that we feel it ourselves as soon as we have come to be somewhat at home in such a language as English or French." --If I have here spoken so much of German difficulties, it is chiefly because Chr. Møller, too, takes his examples from that language, which he thinks is easy to the Germans themselves. But other languages might perhaps with equal justice have been adduced.
4.3. No language is perfect in every respect, but the chief defects lie in different spheres, those of German most in the complicated grammatical structure, those of English in the complicated structure of the vocabulary, in which expressions for cognate concepts are often taken from different sources (indigenous, French or classical). Even when words come from the same source, complications
arise from intricate rules for stress and derivation, which often cause phonetic changes in the kernel, e. g. admire, admirable, admiration; capable, capacity; please, pleasant, pleasure; luxury, luxurious. In less familiar words known chiefly in the printed form (technical or scientific terms) even educated speakers often hesitate where to put the stress.
4.4. How are defects in a language brought to one's notice? Chiefly in the same way as defects in one's momentary speech (above 2.7): the speaker feels that he is not understood by one way of expressing his thoughts, and therefore has to find out unmistakable expressions. The next time he encounters the same difficulty he shuns the faulty term on the principle that the burnt child dreads the fire, and by dint of such repeated experience a word may at last get completely disused.

An inconvenience common to most languages, though, not found to the same extent in all, is the great number of homophones or homonyms; they are found more often in short than in long words: in Chinese they abound. These may be due to convergent sound-changes, as when sea and see are now pronounced alike, or knight like night, or to borrowing, as in the case of reign and rain, or to various other causes. But, as pointed out in my paper Monosyllabism in English (see Lingst. p. 307 ff .) the danger of ambiguity in such a language as English from these homophones is much less than one might at first suppose, because words are never spoken isolatedly, and the whole situation and especially the context of the whole utterance aided by intonation, etc., will nearly always make the meaning perfectly clear: one understands not words, but
sentences. Also it should be noted that polysemy, where 'one and the same word’ has several meanings, is exactly analogous to cases in which two or three words of different origin have come to have the same sound.
4.5. In many cases the inconvenience of having homophones has been remedied by the dropping out of use of one of the words, thus let $==$ 'hinder', OE lettan, on account of the other let, OE lxtan. Other instances are mentioned in Lingst. p. 399, see also the lists in MEG I 11.74 of words completely or partially extinct in connexion with the lesser vowel-raising (by which the earlier $\left[\varepsilon^{*}\right]$ became [ $\mathrm{i}^{*}$ ] like the earlier [ $\left.\mathrm{e}^{\cdot}\right]$ ): mead, mede; mete; quean; teem; ween; weal. But I also point out that in some of these cases one of the words had already before the vowel-raising become rare and therefore could not offer any great resistance to the coming into existence of that sound-change. In other parts of MEG vol. I are given similar lists of words which had become homophones on account of sound-changes. In most English dialects the word son has disappeared and is replaced by boy or lad; the reason is said to be homophony with sun, though misunderstandings would seem to be little liable to occur in this case.

Diez already saw the cause of the disappearance of some Latin words in the Romanic languages in the conflict with homonymous or too similar words (Gr. 1.53). Thus vir and ver on account of verus, mas maris on account of mare, bellum on account of the adj. bellus, habena on account of avena, puer on account of purus, etc. He explains in the same way Fr. soleil, as sol coincided with solum.

On the theoretical question what damage homophony may cause, and reactions against it, see E. Öhmann, Über homonymie
und homonyme im deutschen (Helsingfors 1934); the introduction deals especially with Gilliéron's and other French scholars' exaggerated ideas of the destructive influence of homophony; but see Frey's long list of dead homophones, Grammaire des Fautes, p. 66 ff . Cf. also Robert J. Menner in the periodical Language, vol. 12, p. 229 ff.
4.6. Many scholars-myself among them-prefer calling the languages 'descended' from Latin the Romanic languages on account of the other meanings of the word Romance.

In some cases ambiguity is avoided by adding a word that makes the meaning clear, thus, while go to the left is unambiguous, we have to say the left-hand corner: left represents a rare old word left, lyft, meaning 'weak', which has accidentally fallen together with the participle of leave. But the same addition is found in right-hand corner, where a similar ambiguity is caused by the double meaning of one and the same word. Cf. the additions in cabinet minister: minister of the church. In Chinese a regular expedient is by placing two words together, which may each of them be misunderstood, while the collocation is clear; cf. E. courtyard, subject-matter.

In this connexion I may mention a few instances of inconveniences caused by words being similar, though not completely alike in sound. The names of the 6th and 7 th month are often misheard in the Danish, German and Dutch forms juni, juli (similarly in Spanish, Russian, etc.); but a useful differentiation has been introduced in Eng. June, July, Fr. juin, juillet, Ital. giugno, luglio. The English words starboard and larboard were so often mistaken in commands to the helmsman that it was thought advisable in 1844 to substitute officially the word port for the latter
term. In spite of the many other meanings of port this was in that connexion perfectly unambiguous.
4.7. In some cases the inconvenience of a word having more than one meaning can be remedied only by the occasional use of a clumsy circumscription. Eng. man means (1) human being in general, (2) male human being, opposed to woman, (3) grown-up male being, opposed to child. I have elsewhere quoted Miss Hitchener's line which caused so much amusement to Shelley: "All, all are menwomen and all", and Carlyle's "Atrabiliar old men, especially old women, hint that they know what they know.', Now, for the sense (1), human being, or even human alone as a substantive, is used, as in Wells's "Marriage is not what it was. It's become a different thing because women have become human beings." Anthropology has been defined facetiously "the science of man embracing woman." In French similarly there is no word for sense (1); in a Danish-French dictionary menneske is rendered homme, [être] humain, . . personne, pl. des gens, du monde. In scientific works one may find "un être humain sans acceptation de sexe". In sense (2) an amplification of man is also sometimes felt to be necessary to make the meaning perfectly clear, as when Edward Carpenter in speaking of the deification of the Babe writes: "It is not likely that Man -the human male-left to himself would have done this; but to woman it was natural."-Child similarly has two meanings, one as related to its parents, and one as opposed to the grown-ups; there is nothing illogical in the seemingly incongruous sentence "He pets his children even after they have ceased to be children."

In such, and many other cases, we are obliged to take
a linguistic expression as it has been handed over to us, no matter how inconvenient it may be. We speak of the United States and think of those of North America only, but the name is not good, even if it were only because no adjective can be formed from it; it strikes one as singular at Niagara to hear one fall termed the American fall and another the Canadian fall, though otherwise Canada is reckoned a part of America. It was quite natural in English to form the expression the near East of Turkey (and Minor Asia) and the far East of China and Japan, but it is a little strange in California to find newspapers use these expressions in the same way though China and Japan lie to the west of that country. It was a pity that Columbus in discovering America thought he had come to India, for it leads to the double meaning of Indian (1) $=$ G. indier, indisch, Dan. indier, indisk, and $(2)=G$. indianer, indianisch, Dan. indianer, indiansk. In the latter sense one must often use American Indian, or in scientific language Amerindian or Amerind, but in the ordinary language the inconvenience subsists.

## 5. Grammatical Homophony and Polysemy.

5.1. A special class of homophones is made up of what might be called grammatical homophones. In English the sound [kiŋz] may be either gen. sg. (king's), common case pl. (kings) or gen. pl. (kings'), thus distinguished in the ordinary spelling. A consequence of this ambiguity is the rare occurrence of the last-mentioned form-in two-thirds of Thackeray's Pendennis I counted only 13 instances
besides 14 in which it indicated time or measure. The form is generally displaced by a prepositional combination: of the kings, while there is no difficulty in using such gen. plurals as men's, women's. We do not hesitate to use plurals like men servants, women writers, with both substantives in appositional compounds inflected, but only one is put in the plural form in maid servants and lady writers, as maids servants and ladies writers would be misunderstood. But even with the further complication of a fourth value of the same ending as the third person sg. of all ordinary verbs this particular grammatical homophony does no serious harm to the comprehension of English sentences, as the context will show unmistakably what is meant, and therefore no other remedy has been called for than the extensive use of the preposition of instead of the genitive.
5.2. On the other hand serious mischief would have been caused by other actual or threatening grammatical homophones, which have therefore been felicitously discarded. The form her was at one time both the oblique case of the fem. and a possessive corresponding both to fem. sg. and to the plural, cf. G. ihr. In the latter sense it has been displaced by their from Scandinavian. OE he (m.), heo (f.) and hie (pl.) tended in ME to become homophonous; instead of heo we now have she, and instead of hie the Scandinavian they. His in OE and ME was the genitive (possessive) not only of he, but of it as well. For a short time it was used in the latter function, as still in some dialects, but towards the end of the sixteenth century the new unambiguous form its came into use; it is never used in the Authorized Version of the Bible (1611) and
perhaps never used by Shakespeare though found in some old prints of his plays. But even if thus the worst defect is remedied, his is still polysemous, as seen in the two sentences: "Jack was very respectful to Tom, and always took off his hat when he met him. Jack was very rude to Tom, and always knocked off his hat when he met him." In Somersetshire dialect Bill cut's vinger means 'his own', Bill cut ees vinger means 'the other person's' (PhilGr 220 f.). In Standard English the ambiguity can often be obviated by adding own after his.

In French son, sa may refer either to a masculine or to a feminine; ambiguity is often avoided by additions: son père à lui, sa montre à elle.

Frei, Fautes 19, calls attention to the polysemy of Fr. "C'est lui qui la (= l'a, qu’il a) fait venir", which may mean 'who makes her come, who has made him come, who has made her come, whom he has made come'.

In such cases there is no remedy available except occasionally using nouns instead of pronouns, or turning the whole sentence in a different mould.
5.3. A particularly obnoxious case of grammatical polysemy was created by submissive politeness in German, when Sie, which meant both 'she' and 'they', came to be used as a pronoun of the 'second person' in addressing superiors or strangers. This often necessitates an explanation like 'ich meine Sie [strongly stressed] persönlich'. Grimm in this connexion speaks of "the sultry air of gallant politeness" found all over Europe and made even worse in Germany by pedantry; he rightly calls this Sie a blot on the German linguistic garb, ein flecke im gewand der deutschen sprache. The habit was unfortunately im-
ported into Danish, where now one may hear such bits of conversation as "Hvad er deres planer?"' "Hvis, mine?" "Nej, de andres." ('What are their (or your) plans?' 'Whose, mine?' 'No, the other peoples'.')

Excessive politeness has in other languages, too, led to inconvenience in the words used to address the 'second person', thus in Dutch, where the original plural $j i j$ ( $j e$ ) or gij (ge) is used in familiar speech in addressing one person, and jullie, jullui (jelui) in addressing more than one (with hesitation in the verbal form: jullie zegt or zeggen), while $U$ is the polite word, with remnants of its origin as a third person: $u$ heeft or hebt, $u$ is or bent, $u$ kan or kunt, $u$ mag or moogt. In Italian alongside of the polite plural voi in addressing one person we have lei (originally a dative) as a still more polite pronoun, or the use of the third person without any pronoun. Mussolini has recently ordered the use of voi everywhere instead of lei.-In English politeness has led to abolishing the original second pers. sg. thou, thee, and to the universal use of you. It corresponds both to German $d u$, ihr, and Sie. Having the same form of address to higher and lower, to familiars and strangers is decidedly a great gain from the purely human point of view, though it is sometimes inconvenient to have no distinction between the two numbers, but a plural is expressed by occasional additions, you girls, you people, in recent use you lot; on U. S. yóu all (also you alls) and yous see MEG II 2.8 and American Speech vol. IV.
5.4. I shall now mention some instances in which old syntactic ambiguities have been gradually discarded, at any rate partially. After the abolition of OE weordan the only auxiliary for English passives was am, etc., which in
some cases leads to want of clearness: the door was shut at 9 o'clock may mean 'war geschlossen' and 'wurde geschlossen'. His bills are paid may mean two things as in: 'they are paid regularly every month', and 'they are paid, so he now owes nothing'. But in course of time we see a gradually more frequent use of other forms, so that now instead of the old is taken we have is taken, has been taken, is being taken, and gets taken, more and more clearly differentiated. Where the Authorized Version has 'Blessed are they which are persecuted for righteousness sake' (the Greek original has a perfect participle), later translations have 'Blessed are they that have been persecuted', and ‘Happy are those that have been persecuted' (MEG IV 8.3). 'Thy prayer is heard' becomes 'has been heard'. His bills get paid regularly every month $\mid \ldots$ have been paid.
5.5. Similarly with the auxiliaries for futurity. Where German easily distinguishes the three notions of volition, obligation, and simple futurity: er will sehen, soll sehen, wird sehen, English (and Danish) has only two words: will see, shall see (vil se, skal se). Both have come more and more to be used for simple futurity with obscuration of the sense of volition and obligation. The express indication of futurity has in English been carried out to a greater extent than in Danish, so that the old use of the present tense in that sense has been generally restricted to cases in which it implies a previously settled plan ('We start to-morrow for Scotland') and to conditional and temporal clauses: 'If he recovers his children will be glad | when he recovers he will go to the Riviera'. But the present is not possible in other cases where Danish still uses it. 'I don't know if he will recover $=$ jeg veed ikke om han kommer sig.' And
will in a conditional clause means distinctly volition: 'I shall be glad if you (he) will come'.

But neither shall nor will has everywhere and in every combination lost the original meaning of obligation and volition, respectively. If complicated rules for the use of will and shall are now "the great bugaboo of the English language" (Krapp), this is due to various causes, the chief of which are the usual conflicts of the desire for ease (this has favoured the prevailing use of will, which tends to displace shall everywhere) and that for clearness (MEG IV 18.9). But it should also be remembered that originally English had no expression in its verbs for futurity, but used the present tense alone, so that the language has gained considerably by the adoption of the two auxiliaries.

On account of the frequent use of will to denote simple futurity its use to indicate real volition has been greatly restricted, and other verbs such as want, choose, mean, and intend must often be used instead. Some biblical passages with the earlier use will now be misunderstood. The Authorized Version 'I will giue vnto this last, euen as vnto thee' is changed in the Revised Version into 'It is my will to give' and in the 20th Century Version 'I choose to give'. Similarly 'Get thee out, and depart hence, for Herod will kill thee', has been changed into 'would fain kill thee' and 'means to kill you' (MEG IV 15.5).

In Danish a distinction has developed between the simple and the periphrastic passives: han vil høres expresses volition, han skal hores obligation, but han vil blive hort simple futurity, han skal blive hort the same combined with a promise on the part of the speaker.

In this connexion it is interesting to observe that Diez (Gr. 1.53) ascribes the loss of the Latin forms for the
future tense to homophony: the old forms would coincide partly with the imperfect of the indicative, partly with the present of the conjunctive. Hence the combination infinitive + habeo.
5.6. In another field, too, we see a growing precision and clearness through the gradual discarding of some more or less ambiguous uses of the preposition of, which like Fr. de may be called the preposition 'of all work'. He was robbed of his father might formerly be used equal to the corresponding active sentences 'his father robbed him' and 'some one robbed him (deprived him) of his father'. Now by has come to be the universal preposition with a passive for what in the active is the subject: 'He is loved by everybody'. Similarly also with nexus-substantives, where the ambiguous use of the genitive (subjective or objective like Lat. amor dei) and of of in the same two functions has given way or is giving way to the use of of exclusively for the object, where in some cases for or to may be found, and of by for the subject of the action (not till the 19th century?). But the use of a genitive or a possessive pronoun, is by no means obsolete. The present use may be illustrated first in examples with both subject and object expressed like: 'our pursuit of happiness | his preference for Maria | the suppression by the pope of the order to which he belonged | every government of one nationality by another is of the nature of slavery-and then in examples with one of them only: 'his (S) decision | the man's (O) trial | come to one's (O) assistance | a single man in possession of a good fortune (O) must be in want of a wife (O) | that immemorial object of desire, the government by the wise and good (S)'. Many examples in MEG V ch. 7.

French par and German durch have, though in a lesser degree than E. by, come to be used in some similar cases, because they are clearer than de and von.

In such cases there can have been no actual wish to improve language (his mother-tongue) on the part of the speaker of the moment, but his general wish to be understood as fully and unmistakably as possible, in connexion perhaps with instances in which he has been actually misunderstood or not understood if he used one particular auxiliary or preposition, may gradually lead to giving up altogether the infelicitous expression.

## 6. Degrees of Utility.

6.1. What linguistic distinctions are necessary for the understanding, or desirable, or superfluous? In many instances this may be doubtful, and the answer may be dependent on individual taste. Vendryes (L 411) thinks that the development of the two Latin forms for questions, num vides and videsne, was a precious gain and their disappearance a loss. But the modern expressions 'vois-tu?' 'do you see?' and 'ne vois-tu pas?' 'don't you see?' seem equally clear and just as valuable. Meinhof in a review of my Language says that as a rule primitive languages ('languages without written literature') are more precise than our languages of culture: in Nama 'we' is different according as it refers to two or more men or women, or men and women together, also as the person addressed is included or not. 'Simplification in our languages, he says, is often attained at the expense of clearness (deutlichkeit), and in case of emergency one must remedy the want through all kinds of
additions and circumlocutions.' Now I think most Europeans are content with their we supplemented in comparatively rare cases (we girls, we sailors, etc.), instead of having in each and every case to specify what is meant by we.

It is the same with regard to vocabulary. We civilized people are content with one word for 'wash', where Cherokee has a number of different words according to what is washed, my head, the head of somebody else, my face, my hands or feet, clothes, dishes, etc. We have one word 'cow', the Zulu has no such general word, but special words for 'white cow', 'red cow', etc. Tasmanians had no word for 'tree', but special names for each varicty of gumtree and wattle-tree. Several similar examples are given in Lang., p. 420 f., and it would be easy to multiply them from any account of the languages of savages. Civilization means among other things increase of abstract terms and decrease of superfluous special words.
6.2. I shall now mention some fields in which the greatest precision is desirable or even indispensable, and to which the principle of value is therefore specially applicable, viz. numerals and negative assertions.

The first and most often used numerals seem in all languages to be so distinct in sound that no mistake is likely to occur in ordinary conversation. Generally even the first sound is different, as in English, German, French, Italian, etc., 1234 , and when the initial is the same in two subsequent numbers, as in Dan. to tre, sex syv, Eng. four five, six seven, Fr. cinq six sept, etc., the rest of the word is easily distinguished; spoken French now even tends to pronounce end-consonants which were formerly mute: cinq $[-\mathrm{k}]$ sous, sept [-t] francs. In shouting, however, and
over the telephone, words with the same vowel are apt to be misheard for one another; consequently various remedies have been resorted to. As German zwei and drei in commands were often misheard, the otherwise extinct form zwo (originally feminine) has been officially revived for 2 in military circles, and this is now extensively used in phoning and also elsewhere. "Beim maschinengewehr wird kommandiert: ein strich, doppelstrich, drei strich" (Horn, Sprachkörper ${ }^{2}$ p. 107). In calling the numbers on the telephone in English nought was so often misheard for four, or inversely, that it was finally settled to use [ou] for 0 . In Rio Janeiro the number seis (6) was liable to be mixed up with treis (3) or sete (7), so in calling the number on the phone one has to say meia dúzia 'half-dozen'; 66 is called meia meiadúzia, which is often abbreviated into meia-meia-which thus leads to a curious and nowhere else paralleled sense-development from 'half' to 'six'. (Lingst. 440). In Switzerland it is recommended to say septante and huitante to distinguish 70 from 60.10 and 80 from 4.20. (Frei, Fautes 70). In Denmark the numbers 5 fem and 6 sex having the same vowel were found inconvenient in shouting the numbers in the game of ninepins, hence sex was in one part of the country arbitrarily expanded into sexe with a long [e] added, and in another part replaced by kegler 'ninepins'.
6.3. In the higher numerals the desirability of keeping two series, e.g. $14=4+10$ and $40=4 \times 10$, clearly distinct is shown in various ways, see e.g. Gk tetterakaideka: tetterakonta, Lat. quattuordecim: quaranta, Fr. quatorze: quarante, and similarly in the other Romanic languages (in which Lat. -decim is no longer conspicuous; the
words are now indissoluble wholes). In the Gothonic languages the distinction is made clear by adopting in one series the ending 10 , though sometimes different from the numeral in itself (Dan. -ten as against ti, Swedish -ton as against tio, Eng. -teen with strong stress and long vowel as against ten), and in the other series the substantive tigjus 'decade’, cf. Gothic fidwortaihun: fidwortigjus, Eng. fourteen: forty. But the distinction may be made even more clear by chosing for the first member of compounds a lateral form of the numeral: Eng. fourteen and forty had originally different vowels; Dan. has fjorten as against fire 4, fyrre(tyve) 40, sejsten 16 (though officially spelt seksten): sex, and shortenings in tretten 13 , sytten 17 , atten 18 , nitten 19. Thus all the numbers from 13-19 have different spoken vowels from the simplex with the sole exception of fem: femten. The vowels in these composite Danish numerals are extremely difficult to explain historically, see BrøndumNielsen, Glda. gramm. 1. 175, 217 ff., 279 f., 337, 339, 343, 378; 2. 182, 392. But the tendency to make them distinct is unmistakable. (On the Danish tens see above 3.7). In numerals it is desirable to have forms that are at once easy to perceive, and synthetic forms are here for once often preferable to analytic ones. Still, as the words in German and other languages show, it is no absolute requirement to have unity-forms. But the opposition Fr. quatre: quatorze : quarante; six : seize : soixante; Dan. fire: fjorten: fyrre; sex : sejsten: tres certainly has the great advantage of being at once unmistakable.

I may here mention the numeral system of a totally unrelated language, which shows another nation's instinctive feeling for the importance of distinctiveness in this field. In Turkish (Osmanli) we find:

| 1 | bir | 10 |
| :--- | :--- | :--- |
| 2 | iki |  |
| 3 | üç | 20 |
| yirmi |  |  |
| 4 | dört | 40 kirk |
| 5 | bes | 50 |
| 6 | elli |  |
| 6 | altï | 60 |
| 7 | yedi | 70 |
| yetmiṣ |  |  |
| 8 | sekiz | 80 |
| 9 | dokeksen |  |
| 9 | 90 | doksan. |

But the numerals 11-19 are simply composite on bir, on iki, etc.

By the way it is curious that $60,70,80,90$ are evidently more composite than the earlier tens. The break from 60 on is noticeable, as in the OE with hund: hundseofontig 70, hundeahtatig 80 , hundnigontig 90 ; it is probably due to old Babylonian mathematics, to which we owe also our division of an hour into 60 minutes and the division of the day into twelve hours.

The distinction between cardinal and ordinal numerals is generally important enough for separate forms to be used. But in some cases, where mistakes are not liable to occur, the distinction is dispensed with, and the easier cardinals are used where logic would require ordinals, thus in the indication of the year, 1940 means the 1940th year; often also after book (book II), chapter, paragraph and page. In French also with the days of the month: le sept juillet (except le premier) and sovereigns: Louis quatorze. The word number really makes the following numeral into an ordinal: No. 17.
6.4. Another field in which precision is more than elsewhere of importance, is the opposition between positive and negative utterances. To prevent a negation from being
overlooked we find that in many languages the negative word is placed as early as possible in the sentence; note particularly in prohibitions Gk. mé, Lat. noli, E. don't, Dan. la var $\stackrel{a}{a}$. Further there is a tendency, when the negative adverb has become very short and therefore liable to be missed in hearing the sentence, to replace it by a stronger and fuller word: Latin non, English not, German nicht instead of earlier ne, French ne strengthened by added pas, etc. See my book Negation (1917) and MEG vol. V ch. 23. Of particular interest is the English development of special verbal forms in connexion with the weakening of not into $n$ 't. These negative forms are in themselves distinct enough from the positive ones in those cases where n't forms a separate syllable: did: didn't, would: wouldn't, you should [Jad] go: you shouldn't go, etc. Not so when the added -nt would enter into one syllable with the preceding auxiliary: here distinctness is obtained by the selection of an existing variant form of the auxiliary while the chief form has been reserved for positive sentences. Alongside of will we had ME wol, alongside of shall [fæl] we had [Jaul], of do [du*] there existed an old form with [ $\mathrm{o}^{\bullet}$ ]; hence the clear opposition: he will [hi wil, hi`l]: he won't [hi wount]; we shall [wi• fæl, wi• fl]: we shan't [wi• fa‘nt]; I do [ai du'] : I don't [ai dount]. See for particulars in other verbs (can: can't; am: $a(r) n ' t$, ain't, etc.) MEG V $23.1_{7} \mathrm{ff}$.
6.5. Nouns (and pronouns) in our languages distinguish case and number. Which of these is the more important? No doubt the latter, which corresponds to a palpable difference in the outer world, while this cannot be said of the former. In view of the innumerable intricacies of the forms and employments of the originally eight Aryan cases,
with their frequent falling together (syncretism: dat., abl., loc., instrumental, even sometimes nom. and acc.) it seems to be a hopeless task, as some grammarians endeavour, to assign one definite ending or one definite function to each case in primitive Aryan. Hence it is easy to understand why in historic times we witness a constant reduction in the number of cases, thus most radically in English. Here, for instance, the distinction between nom. caru, tunge and acc. care, tungan, the dat. in -e: cyninge, the pl. in $-u$ : fatu, and the dat. pl. in -um: dagum have been given up. The most useful distinction, judging from the result, seems to be that between the nom.-acc. on the one hand and the gen. on the other, but even the latter has been given up in Romanic, and though it is vigorously alive in English, its existence is to a great extent undermined by the of-combination.

In English the distinction between singular and plural is very clearly marked in nouns, except for a comparatively small number of nouns (sheep, deer, swine). But it is noteworthy that in some combinations the precise indication of the plural has been found superfluous because a preceding numeral as adjunct is a sufficient sign of plurality: three score, five thousand, three million people. Corresponding rules are found in other languages, e. g. Dan. 6000 mand, alle mand; German 6000 mann, alle mann, but the extent to which the rules are employed is very restricted in our languages. In Magyar and Turkish, however, it is a general rule that the singular form is used everywhere after a numeral. If the names of some animals that are hunted are often used without the plural mark (snipe, wild duck, etc.) the reason is that in this connexion they are regarded as mass-words, in which the distinction between one and more than one is unimportant; cf. having fish for dinner.
6.6. In Old French we find - apart from a few survivals of genitive cases - a distinction between the nominative and an oblique case, thus e.g. with a faithful rendering of Latin conditions:

| Nom. sg. | Obl. sg. | Nom. pl. | Obl. pl. |
| :--- | :--- | :--- | :--- |
| murs | mur | mur | murs |
| fils | fil | fil | fils |
| sire | seignor | seignors | seignors |
| on | homme | hommes | hommes. |

The $s$ of the nom. sg. which originally appeared only where Latin had an $-s$, is sometimes transferred to such words as peres, Lat. pater, while the $-s$ of the acc. pl. is transferred to such nom. fem. pl.s as filles. Sire and seigneur have been differentiated, and so have on and homme, though in another way. But towards the end of the Middle French period case distinctions were given up, and $s$ was used everywhere as a sign of the plural. When final $s$ was dropped in pronunciation, one form only remained in nouns; and the same is true with regard to fils, in which $s$ is exceptionally kept. The difference between the two numbers is now in most combinations shown by adjuncts only : le mur, le(s) mur(s); ma fille, me(s) fille(s).

The history of German nominal flexion shows an increasing tendency to do away with case distinctions and to make the distinction between singular and plural clearer. Thus the OHG case system in the singular, e. g. hano, hanun, hanon; zunga, zungûn; herza, herzin, has been simplified, but on the other hand the new plurals väter, brüder, mütter are now distinct from the singular, and a great many new masculine plurals in -er have been created: götter, geister, wälder - Willmanns, Gramm. 3 p. 387, uses the charac-
teristic expression 'als willkommenes mittel der pluralbezeichnung'. It is interesting to note the difference between e. g., die schicksale zweier männer (in which the -er of the numeral has been retained as the only sign of the genitive) and die schicksale der zwei männer (where it is dropped as superfluous after the article). The genitive has generally more power of resistance than the other oblique cases, but even that is now threatened, syntactically and formally, chiefly, but not exclusively by the growing tendency to employ the preposition von, see A. Debrunner, Aus der krankheitsgeschichte des genitivs (in Berner Schulblätter 1939). Cf. also Havers HES 130.

There are a great many shrewd remarks on cases in general and on their relation to the distinction between animate and inanimate in H. V. Velten's paper The Accusative Case and its Substitutes in the periodical Language 8, p. 255 ff . I cannot deal with all the problems treated by him, but will call attention to his discussion of the use of $a$ in Spanish and Portuguese and pe in Roumanian before what used to be an accusative. I have noted with special pleasure his words, p. 259, that "Essential (N.B.) flexional endings never disappear for purely phonetic reasons", and his words on linguistic economy, p. 261.
6.7. While thus the distinction between one and more than one is felt everywhere as important in substantives, the same is not true of the separate indication of duality as distinct from plural in general. The old Aryan dual has disappeared in all languages except for a few survivals in Slovene and in some Lithuanian dialects. According to Meillet's well-known theory its gradual disappearance in old Greek is due to an advance in civilization. One is led by this explanation to remember the numerous to us unnecessary distinctions found in the languages of uncivilized
nations mentioned above (6.1). But are social conditions really the motive power in such phenomena?
6.8. English shows conclusively that when number and case are indicated in the primary words an indication is perfectly superfluous in secondaries, cf. a good child, a good child's, good children, good children's. The definite article is uniformly the in both cases and in both numbers. (By the way, I should like to see an explanation of this uniformity over against the great number of forms in OE: se, seo, part, pone, pcem, pass, para, etc., from a strict 'soundlaw + analogy' point of view without regard to value.) This loss of distinctive concord renders possible a great number of useful combinations like my wife and children (Fr. ma femme et mes enfants) | all her life and hopes and griefs $\mid$ the future life and adventures of Walter, etc. English feels little difficulty in combinations like Royal Academician, a tragic dramatist, a high churchman, a mutual admiration society, old and new bookseller, what size gloves do you take? (Examples in MEG II ch. 12). But in German, where secondaries are inflected, such occasionally occurring combinations as eine reitende artilleriekaserne, ausgestopfter tierhändler, ein ehemaliger baumwollene nachtmützenfabrikant are necessarily ridiculed. - In English it is also possible to say $a$ (or this) delightful three weeks, or for one short seven days, without feeling any incongruity in combining singular and plural with the same uninflected adjunct. When an adjective should be used as a primary, the added one or ones serves to show the number: the fat one: the fat ones.
6.9. When the outer differences between words for intimately connected ideas or conceptions are exceptionally
great, such unhandy words are often discarded as superfluous. Thus English hither, thither, whither have to a great extent given way to here, there, where (sometimes with to added), and hence, thence, whence to from here, from there, from where, though the old words may still be used figuratively in the sense 'in consequence of this, that, what'. An agreement is thus obtained with other expressions for local relations, cf. go home, from home, etc. (Hitherto is now exclusively an adverb of time, not, as formerly, of space as well.)

## 7. Glottic.

7.1. In some cases we find that something that was originally a purposeless purely mechanical change has afterwards been turned to account as a useful modification of a word: from irrelevant it has become relevant, or glottic, as I call it Lingst. p. 214-217. This term has been accepted by Trubetzkoy and Alfred Schmitt. Thus the differentiation of of: off, at first merely a weak and a strong form of the same word, has led to two distinct words. This, in connexion with the syntactic development dealt with above (5.7) relieves of of parts of its task as 'preposition of all work'. With also had the corresponding two forms from the same cause, but here it could not be usefully differentiated, and the weak form [wið] survived alone. Similarly that has become two words, [ðæt] as a demonstrative pronoun and [бət] as a particle (conjunction, relative), though in writing the two words are spelt the same. OE ealsw $\bar{a}$ has split up usefully into also and as, and in German we have a similar differentiation into also
and als, though the meanings of both the strong and the weak forms are different in the two languages. OE to has become to and too.
7.2. The dropping of final $-n$ before a consonant in the following word while it was retained before a vowel at first had no meaning at all, as still in the two forms of the indefinite article: a man: an end (cp. F. un chien: un ami). But in some cases it has been utilized: my and mine, no and none have different functions as secondaries and primaries, and the $-n$ has even been extended in dialects and vulgar speech to ourn, yourn, theirn as primaries to the secondary our, etc. And -en, which was at first joined as a meaningless addition to some verbs, has now become an independent suffix to form verbs from adjectives, as in blacken, sweeten, lessen, see my article in Acta Linguistica 1.48 ff .
7.3. Mutation (i-umlaut) at first occurred mechanically whenever a subsequent syllable contained an $i$ or $j$, and did not influence the meaning of the word. But while the mutated forms were retained in those cases in which they pervaded the whole of a word and its derivatives, such as end, send, king, bridge, the discrepancies caused between closely connected forms of one and the same word were in many cases gradually discarded. We have no longer any survivals of mutated forms in the dative like OE men, dehter, fet, bec; nor in the comparative, like OE lengra, brædra, giengra, with the solitary exception elder, whose application has been restricted in favour of the regular older. An adjective like gylden has given way to golden, and many of the old mutated plurals have disappeared, such as OE bec, friend, now books, friends. Thus also the
change in the second and third person of verbs: siehst from seon, ciest, fielp from ceosan, feallan has been given up. But the difference between non-mutated and mutated forms has become glottic, i. e. has been turned to useful account, firstly to distinguish the singular from the plural in a wellknown number of substantives: men, feet, geese, teeth, mice, lice; note the plural women [wimin], in which the spelling completely disguises the spoken form, - and secondly to derive verbs from nouns: deem, feed, bleed, breed, fill, knit from doom, food, blood, brood, full, knot. But this means of derivation has in a curious way been encroached upon by the new-creation of verbs from the non-mutated nouns: doom, food, brood, knot; and inversely by that of substantives from the mutated verbs: feed, bleed. Anyhow the conditions in these cases in English, in which mutation is the only grammatical means, are different from the corresponding ones in German or Danish, in which we have besides the vowel-change an ending: pl. G. füsse, Dan. fødder, vb. G. füllen, Dan. fylde, etc.; here mutation is not to the same extent glottic as it is in the English instances named above.

What I have here said of $i$-mutation is totally different from E. Sapir's treatment of the same subject (Language, 1921, p. 183 -204), where he gives mutation as a typical example of phonetical law generally and deals at length with the historical development of the plurals Eng. feet, G. füsse. He believes in phonetic 'drifts' that are the same in English and German though operating in the same consistent direction at some centuries apart: G. füsse is three centuries behind Eng. feet; both were developed after the separation of the two dialects from the common ancestor. But to him the commonly accepted theory that mutation was at first a purely mechanical change does not go deep enough, and he hints at another explanation. I quite agree with him that the "tendency to isolate phonetics and grammar as mutually irrelevant
linguistic provinces is unfortunate" (p. 196). - indeed I said the same years ago in Lang. 298 and in Lingst. 224-225-but I cannot follow Sapir when he seems to think (p. 198) that it was a 'lucky accident' that the change of the radical vowel preceded the loss of the ending because in the hypothesis of the opposite sequence "there would have been no difference between the singular and the plural. This would have been anomalous in Anglo-Saxon for a masculine noun ... All the Germanic languages were familiar with vocalic change as possessed of functional significance. Alternations like sing, sang, sung (AS singan, sang, sungen) were ingrained in the linguistic consciousness...failure to modify the vowel would soon result in morphological embarrassment. At a certain moment the $-i$ ending of the plural (and other endings with $i$ in other formations) was felt to be too weak to quite bear its functional burden. The unconscious AngloSaxon mind... 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.... Phonetic changes may sometimes be unconsciously encouraged in order to keep intact the psychological spaces between words and word forms."

Now, did Sapir seriously mean us to believe that mutation occurred chiefly in order to prevent the OE masculines from being alike in singular and plural? Why should not they be allowed to be alike, just as many neuters were through the loss of $-u$ (OE hors, horn, etc.)? Did the Anglo-Saxons feel that these words as masculines were more entitled than neuters to have a separate plural? And was that their reason for modifying the vowels of hundreds of other words in which it had no morphological significance? (I mentioned some above, brycg, end, cyning, ciest etc.). The theory seems to me too fantastic for serious acceptance.
7.4. Of the second great Aryan vowel-shift, which I have ventured in English to term apophony (after Fr. apophonie, a translation of G. ablaut, which is often used in English; Sweet says gradation) - the same is true as of mutation, though in a lesser degree, that it tends to become glottic. It has become so in sing : sang: sung and some other verbs,
but this was not carried through in OE and the other old Gothonic languages, for $u$ was found also in the plural of the preterit, and the vowel-change was nowhere the exclusive means of showing the form, as an ending was used besides it to indicate the function of each particular tense, number and person. Sapir's remark, quoted above, p. 57, therefore is not quite to the point.

## 8. Prevention.

8.1. In the phenomena dealt with so far we have seen how an inconvenience in a language has been removed by something which proved better fitted for the purpose of the language. Now the question arises: Does a language ever prevent an inconvenience? This is expressly denied by Paul, Prinzipien der sprachgeschichte ${ }^{4}$ p. 251: "Es gibt in der sprache überhaupt keine präkaution gegen etwa eintretende übelstände, sondern nur reaktion gegen schon vorhandene." But some linguists think differently. In Lang. p. 362 I adduced what might be a case in point: In classical Latin there existed a strong tendency to leave out final $-s$, but that was checked because it would in many sentences lead to too strong ambiguities when $-s$ was used as the only sign for some case-distinctions, and the word-order was not yet fixed. But later word-position became more and more subject to laws, and prepositions were used more extensively, and when, after the splitting up of Latin into the Romanic languages, the tendency to slur over final $-s$ knocked once more at the door, it met no longer with the same resistance: final $-s$ disappeared first in Italian and Roumanian, then in French, and is now disappearing in

Andalusian. - That $-s$ was preserved in Latin on account of its "valeur flexionnelle" is now also recognized by Grammont, Phon. p. 364.
8.2. The idea that a language sometimes prevents something that might be dangerous is the basis of the modern theory of phonetic differentiation, as developed first by A. Meillet in MSL 12 p. 14 ff ., and later especially by Grammont, Phon. p. 229 ff . The word differentiation is here used as a technical term for a special phenomenon, while the same word is generally used by linguists in a much wider sense (thus also above 7.1). Grammont uses such expressions as: "The cause of the differentiation is generally speaking the unconscious fear of an assimilation which would disturb the economy of the word. ... For fear of letting the two phonemes be fused [se confondre] they tend involuntarily to emphasize their differences." Would it not be better instead of invoking this psychological factor simply to say that for some unknown reason two consonants immediately after one another are not always treated in the same way, sometimes their articulations approach each other, and sometimes they drift more apart. We may call the former change assimilation and the latter differentiation, but that is merely giving names to the two phenomena, and not finding out their causes. And let us be honest enough to admit that no one has ever been able to point out the conditions under which here one and there the other change has occurred in the languages examined. When two vowels meet, Grammont says that in order to prevent their contraction "which upsets [bouleverse] the economy of the word through making it lose one syllable, the subconscious fear of this assimilation draws the atten-
tion of the organs [! In another place he says "les organes phonateurs'"] towards the point where the vowels meet', and this leads first to an embryonic consonant and then to a full consonant between the two. As if we did not find innumerable instances of words becoming shorter by one or even two syllables through the loss of vowels. The whole chapter in Grammont's book seems to me full of phonetically and psychologically contestable assertions; Meillet's article is on the whole more sober. But the whole theory of differentiations as found in these two writers needs a thorough revision. This has been done to some extent by Millardet (Études de dialectologie landaise, 1910) and Hallfrid Christiansen (NTS 9.345 ff .). They separate from it the 'segmentation' found e.g. in -mpt- from -mt (Latin emptus, etc.) and -ndr- from -nr- (Greek andros, Eng. thunder, etc.) and -mbr- from -mr- (Greek mesembrinos, F. chambre, Eng. timber, etc.). Here it looks as if a consonant had been inserted, but that is really a delusion due to our defective alphabetic writing. What has really happened is merely a slight want of precision: the organs should move at exactly the same moment, but in $m t$ and $m r$ the lips linger and in $n r$ the tip lingers just a fraction of a second after the other organs have moved. It can hardly be believed that this should be due to the fear of an assimilation, which in the two last cases seems quite improbable. In sumpsi, sumptum an assimilation would be more likely to occur, but it would split up the paradigm of the verb: the connexion with sumo, sumere, etc., would, however, be kept up by the retention of $m$ without any $p$ being necessary.
8.3. While to my mind it has not been absolutely ascertained that an impending linguistic danger can be averted
(thus ante eventum), there can be no doubt that when an inconvenience has begun to appear its further spreading can be prevented. Such was the case with Latin final -s, which had begun to be dropped in Cicero's time: this was checked (above 8.1). Another case in point is the dropping of the English genitival $-s$ after another $s$. This was very frequent in former centuries, Shakespeare writes, e. g., Adonis breath, Phoenix throne, Ceres blessing, Charles wain, Clarence death, your Highness pardon, etc. But he has also the prince's doom, Judas's own children, and this form, with the grammatical homonymy avoided and the genitive clearly kept distinct from the common case, has now prevailed: St. James's Park, Charles's wain, Jones's children, etc., except in a few isolated cases: St. Agnes' eve, Hercules' share, Pears' soap. Cf. above 5.1 and 6.5.

## 9. Semantics.

9.1. If it is true that many of the grammatical changes we witness in the historical development of the best-known languages have proved on the whole beneficial in the long run, the question naturally arises if the same holds true of semantic changes. But in view of the bewildering multitude of directions in which words and combinations of words may and do change their meanings it seems quite impossible to assert or to deny any universal tendency for the better or for the worse in this department. Is an extension or a restriction, a widening or a narrowing of the signification of a word an advantage or a disadvantage? It may be both, or rather, in most cases it neither improves nor impairs the language in which it occurs. Which is the
better meaning of such etymologically identical words as E. stove - G. stube, Dan. stue 'living-room' or E. chin G. kinn, Dan. kind 'cheek'? No one can tell.
9.2. Yet it may not be altogether hopeless to look out for progressive tendencies even in this field. By being used in a transferred sense a word may acquire a special kind of usefulness and fill a gap in the vocabulary. Take the word horn: as originally used of a cow's or similar animal's horn it expresses in itself a combination of many special concepts each of which may be isolated in the mind of a speaker. If he wants a name for a drinking vessel of a shape similar to that of a cow's horn he simply calls it a horn and thus creates a name for such vessels. Or it may be used of a musical instrument of the same shape. The similarity in shape is perhaps less obvious when the word is used for the protruding feelers of some insects; cf. also the horns of a dilemma, and horns as a symbol of cuckoldry (it used to be a customary insulting gesture to hold a pair of fingers up to the forehead like a pair of horns). It is different when by speaking, e.g. of a button of horn we create a name for that particular substance without regard to the shape. Thus we see how denominations for various concepts which would otherwise have been nameless have come about by a transferred use of one and the same word - decidedly a gain for the language. An equally useful polysemy is similarly brought about when foot is used for something else than the limb of an animal: the foot of a mountain, foot as a measure of length or in metre, etc. In such cases polysemy is far from being harmful like those considered above (4.4) ; the new applications are useful because in each instance of their use the words
cannot be misunderstood for the thing at first meant by them.

Transferred applications of the most usual words are inevitable in any language, and very often they are advantageous or even indispensable. Think, for instance, of such a word as old: old times; my new house is an old one, and my old house was a new one. Or of verbs like go: time goes, the watch goes, it is going to rain, he goes in for astronomy, or come: it comes true, it came to pass, come to blows, to grief, come across someone, come of it what will, come round, etc. etc. Youth is used not only = 'being young, young age', but also collectively of all young people, and individually $=$ 'young man'. Such examples might be multiplied ad infinitum.
9.3. In French the word tête (Lat. testa 'pot') has taken the place of chef (Lat. caput) as the name of one part of a body. This is often mentioned as an instance of a slang word ousting a more dignified word, but it has not been generally noticed that a useful distinction has been gained by the existence side by side of the two words tête in a material and chef in an immaterial meaning. The usefulness appears from the same distinction being made in various ways in other languages. German $\operatorname{kopf}$ (also a slang word meaning at first 'pot' like tête): haupt, cf. hauptsache. Dutch kop as in hals over kop: hoofd, cf. hoofdzaak; yet corresponding to German kopfweh we have hoofdpijn 'headache'. In Danish two pronunciations of the word generally written hoved are used: [ho'ðə] 'tête', with [ho'ठpi'nə] 'headache': [ho'vəð] in compounds like hovedsag 'chief matter', hovedstad 'capital', a distinction which is not, it is true, recognized by everybody. In Russian we have the
popularly developed golova, with golovnaja bol' 'headache' as distinct from the originally Church-Slavonic glava with the adjective glavnyj 'principal'.
9.4. It may be said that the specialization of deer in English (cp. in the old general sense G. tier, Dan. dyr) is an advantage because the language possesses other words for the original meaning: beast and animal, the former often with a disparaging nuance which the latter as the more scientific name has more seldom. The existence of the two words breath and spirit has allowed the earlier synonym ghost to be specialized in the sense 'spirit of the dead', apart from such survivals as give up one's ghost. Other examples of similar specifications are seen in napkin, formerly meaning the same thing as handkerchief, and when clean and pure, which in former times were used indiscriminately, are now more neatly distinguished: we no more say clean gold. Useful distinctions are now made between convince and convict, persecute and pursue, which were formerly close synonyms; cf. also nourish and nurse, which like the last-mentioned derive from one and the same source. Marlowe was still able to speak of erring stars $=$ 'planets'. Now err has always a disparaging sense. Admiration formerly meant 'wonder' without implying approval as it now does; wealth meant 'well-being' in general, now it means 'riches'. Room formerly like Dan. rum and G. raum meant 'space', now it is specialized as part of a house; reverend formerly 'revered, venerable' in a more general meaning than nowadays; property might be used for 'proper character or function', now it means only 'thing possessed, possession'. Purchase might be used for obtaining by any means, not as now for obtaining by
paying the price. Providence had formerly the Latin meaning of 'foresight' besides its present meaning of divine providence. Prevent also had more of its etymological meaning 'anticipate, arrive first' in order to help, while now it has specialized in the sense 'stop, hinder'. Provoke similarly might mean 'call forth' (as still in p. indignation or enquiry), now it is 'irritate' generally. In many of these words it is noticeable how the original meaning known from the etymology has been given up in ordinary use. It is thus evident that the changes in meaning, which must have been brought about quite gradually, are due to the man in the street, who knows nothing of Latin and cares nothing for etymology. But the result has been an increase of perfectly precise words for necessary concepts not otherwise clearly expressed in the language. In some cases remnants of the old general meaning are still to be found.
9.5. It is curious to observe how often words that were formerly innocent or morally neutral have in course of time been as it were degraded or reduced to a lower sphere. Damn is now a swear-word, but formerly it meant 'judge' or 'condemn' in general. Churl meant 'rustic, countryman' without having the disparaging character it now has. Backside might be used of the rear part of any thing. Cunning and crafty meant 'clever' or 'strong', but are used now only in a bad sense. Corpse might be said of any, not only of a dead body. Lewd meant 'ignorant' or 'vicious' in general, and wench meant 'girl', now both words imply sexual incontinence. Silly from the meaning 'happy, blessed' (like G. selig) has come to mean 'harmless' and now 'foolish, imbecile'. Monster used to mean 'wonder', now it is an enormous or enormously wicked being, often imaginary.

Vulgar from meaning 'used by everybody' (the vulgar tongue) has come to mean 'used by the lower class only'. Usury meant 'interest', but is now used of illicit or exorbitant interest only. Abuse from meaning 'misuse' has come to mean 'revile', Preposterous has lost the etymological meaning 'placed in wrong order' and has become a fitting word for 'absurd', excellent from its length and weight to express contempt. Fearful and dreadful used to have the meaning 'full of fear' in the active sense of fearing; now they have been reduced to the meaning 'inspiring fear', 'terrible'. In the same way painful has lost the meaning 'laborious'. But in all such cases specification as above means precision, thus a kind of progress.

On such changes of meaning as make words echoic and thus expressive see below 10.9 .

## 10. Aesthetic Feeling.

10.1. In the preceding chapters I have taken what might be termed a purely utilitarian view, calling those changes beneficial which further the intellectual object of imparting thoughts to others and thus make a language more practical. But man does not live by bread alone, and language has other tasks besides being a useful tool for communications. It is used not only for speaking but also for singing, and talking is often nothing more than a mere playing with sounds to amuse oneself and one's hearers. I have dwelt at some length on this aspect of language as a plaything in Mank. p. 5 ff., quoting among others $\mathrm{M}^{\text {me }}$ de Staël, who called it "an instrument on which one likes to play and which exhilarates the mind just as music does with some
people and strong drink with others" - and Malinowski, who said that among the natives of Trobriand (near New Guinea) language was essentially a means to bring about a pleasant contact between man and man, a sociable instrument quite apart from the contents of the words uttered.

Swinburne when asked what he meant by some line in one of his poems is reported to have answered: "I am sure I don't know, but isn't it pretty?', And the same is true of innumerable refrains and tra-la-la's in popular songs which please the ear and fascinate aesthetically without really saying anything. Even in those utterances which do convey meaning considerations of euphony, i.e. phonetic beauty, play their role: not only in poetry, but in prose as well we prefer those sequences of sounds that flatter the ear and produce a harmonic impression. Rhythmic songs cheer and make manual work easier and more entertaining; the importance of rhythm among savages has often been dwelt upon, but we civilized people are no less subject to its charm, see especially Karl Bücher, Arbeit und Rhythmus (1902) and G. Cederschiöld, Rytmens trollmakt (1905). Many changes in the place of stress tend to bring about an alternation of strong and weak syllables and thus constitute an aesthetic gain; note thus the shifting in he speaks Chilnese: a |Chinese book| he rushed down' hill: a |downhill rush | this after|noon: |afternoon tea, etc. A pleasant rhythm is also found in a great many habitual combinations such as bread and butter (we do not say butter and bread, but with this arrangement the same rhythm is obtained in G. butterbrot, Dan. smørrebrød); cf. further cup and saucer, rough and ready, rough and tumble, free and easy, etc. (GS § 245). Note that such a rhythmic alternation is not only aesthetically pleasant, but is really a saving of effort for the organs
compared with a long string of uniformly strong or uniformly weak syllables. Metre is, at any rate to a great extent, an application of the principle of human energetics.
10.2. A repetition of the same combination of sounds is pleasant to the ear; this has led to the extensive use of rime in modern poetry and also in everyday combinations such as fairly and squarely, highways and byways, snatch and catch, it will neither make nor break me, etc.; cf. also such popular words as handy-dandy, hugger-mugger, hocuspocus, higgledy-piggledy, etc. Here we have the same stressed vowel followed by identical sounds; but the ear is also pleased with a repetition of identical consonants surrounding a variety of vowels, generally in the order $i$ - a back vowel (a or o): zigzag, chit-chat, dingle-dangle, fiddle-faddle, flip-flap, knick-knack, tick-tock, tit for tat, etc. And finally we may here mention alliteration, i. e. the repetition of the same initial sound, which plays such a large part in old Gothonic poetry and is found in a great many familiar phrases: faint and feeble, rack and ruin, might and main, part and parcel, care killed a cat, neither make nor mar me, as cool as a cucumber, etc.
10.3. Now it is curious to notice that although such similarities of sound as have been exemplified seem to be favourites all over the world, there are others which are more or less avoided. This is especially true of the immediate sequence of an identical short syllable within the same word. The dropping of one of these syllables is the phenomenon termed haplology: England from Engla-land, eighteen from OE eahtatiene, honesty from ME honestete, barn from OE bere-ern, humbly from ME humblely, Glou-
(ce)ster, more or less vulgar pronunciations like pro(ba)bly, Feb(rua)ry; from other languages may be mentioned Lat. nu(tri)trix, sti(pi)pendium, Gk am(phi)phoreus, ModGk (di)daskalos, Fr. cont(re)role, ido(lo)latrie, G. and Dan. ka(mo)mille. The explanation of this leaving out of a syllable is probably that given by Grammont Phon. p. 336, but also much earlier by Curtius, that the repetition here would produce the impression of stuttering-an impression which the other repetitions mentioned in 10.2 could not produce.

This kind of haplology is thus psychologically different from another kind (treated together with it by me in LPhon. 11.9 and MEG 7.8) in which it is not a whole syllable but one or more consonants that are left out: par (t)take, wan $(t)$ to go, las(t) time, ye(s) sir, Sn(t) Thomas, a goo(d) deal, etc., G. we(nn) nicht, Dan. $o(m)$ muligt, po(st)stempel, G. je(tz)zeit, etc., Here the reason is an acoustic illusion: the sound is (or the sounds are) perceived as belonging just as well to what precedes as to what follows. But the same kind of illusion may here and there be produced in the case of a syllabic haplology.
10.4. Haplology is often termed syllabic dissimilation and thus viewed as a subdivision of the larger class of linguistic changes which are comprised under the name of dissimilation. Very much has been written on this subject, see especially M. Grammont, La dissimilation consonantique (1895), K. Brugmann, Ias wesen der lautlichen dissimilation (1909), and Grammont, Phon. (1903) p. 269-337. Other literature in Brugmann p. 5 and in Hermann, Lautges. $u$. anal. 62 ff .-Before entering on theoretical questions let me first give a number of familiar examples.
$r-r:$ Span. árbol<arbore $\mid$ Eng. marble $<\mathrm{F}$. marbre $\mid$
Ital. Mercoledì, Span. Miércoles $<$ Mercurii dies || Ital.
Federico | Ital. frate | F. patenôtre | Ital. pelegrino,
F. pèlerin (cf. Eng. pilgrim) < peregrinu- | Dan. vg. balbér < barber.
l-l: F. nivel, niveau< libell- (cf. Eng. level) | Lat. -alis and -aris: liberalis, familiaris, stellaris.
$n-n:$ F. orphelin <-ninu | F. licorn<unicorn- | Ital. Bologna < Bononia | Span. Barcelona<-nona, ef. Span. alma $<$ anima $\mid$ F. nappe $<$ mappe.
$\mathrm{y}-1$ : Walker, in 1791 said that -ing should be pronounced in writing, etc., and especially after $n$ : sinning, beginning, but that the best speakers say singin, bringin, flingin.

Stops: Ital. cinque, F. cinq $<$ quinque $\mid$ F. quincaille $<$ clincaille $\mid$ Eng. taper $<$ papyru-
Vowels: Ital. agosto (cf. F. août) $<$ augustu-.
In reduplication we must suppose that the original practice was to give the full word twice to enforce the impression, but later the first form might be abbreviated, as when it was used in the present or perfect as a subsidiary means of indicating the tense of a verb; then it might in certain cases be altered by dissimilation, as in Lat. spopondi, steti, stiti. The vowel in such forms as cecidi, pepigi, too, is due to dissimilation. Thus also in Goth. haihait, where the first ai means only short [e], but the second is the diphthong. Consonants are dissimilated in Goth. saislep, faifrais, gaigrot. The reduplicative character is totally obscured in the isolated OE survivals heht, heort, reord, ondreord.
10.5. The reason for dissimilations in general must evidently be psychological, but the above-mentioned fear of appearing as a stutterer can only be adduced in rare
cases such as possibly the giving up of the abbreviated reduplication in the conjugation. Brugmann's explanation by means of horror aequi is only a figurative expression. The speaker before pronouncing a word, or while pronouncing it, thinks of the whole and has to issue orders to the various organs concerned in the production of the sounds that make it up, and a command may be sent down to one organ a moment too early or too late. The inclination to make mistakes naturally increases with the number of identical or similar sounds in close proximity. Hence numerous 'slips of the tongue' or lapses such as have been collected from the individual speech of himself and his friends by R. Meringer (Versprechen und verlesen, 1895, Aus dem leben der sprache, 1908). This, I think, explains the frequency of the phenomenon with $r$, especially in its trilled tongue-tip form, on account of its complicated articulation (which also occasions frequent transpositions, as in bird, OE bridd, third, OE pridda). Many of the examples given by Grammont are only occasional slips or 'nonce-words'. When the result of such lapses becomes settled as a permanent feature of a language, the reason is no doubt connected with the aesthetic feeling of the nation in question: the new form is felt as more euphonious than the old one; cf. Walker's words about -ing: "a repetition of the ringing sound in successive syllables would have a very bad effect on the ear." But the sensibility to cacophony or euphony varies from individual to individual and from nation to nation; hence it is never possible to predict, or to give rules for, when a dissimilation will or will not take place in closely similar circumstances. The difference in degree in this kind of sensibility probably explains the fact that dissimilations seem to be much more frequent
in the languages of the more artistic Romanic nations than in Gothonic languages.

It is, of course, very laudable that Grammont tries to find out the 'laws' of dissimilation, i. e. not laws of the occurrence or non-occurrence of dissimilation, but laws of which sounds are kept and which are omitted or changed in those observed cases in which dissimilation has occurred. But his one comprehensive law, 'la loi du plus fort', does not help us a bit, for it says nothing but the self-evident rule that the stronger sound is kept and the weaker one is not. And, as Brugmann justly remarks, we are not much better off for his many special laws (originally 20, the number has now been reduced) if we want to find out which sound is stronger than others, on account of its position in accented syllables or in groups. Anyhow there is no reason, as is sometimes done, to date a new epoch in linguistic science, or even a new science, la phonétique évolutive, from the appearance of Grammont's book on dissimilation.
10.6. Dissimilation as here viewed has (as already remarked more than a century ago by one of the pioneers of comparative linguistics, Pott) some connexion with the well-known rule by which the good stylist avoids a repetition in close proximity of the same syllable(s) or the same word(s). Pott gives as examples German "die die menschen lieben, geliebt werden werden" and "mit desto sicherer nachsicht'". In English for the same reason we use early and not earlily as an adverb and avoid such adverbs as heavenlily, masterlily, timelily, etc., using in a heavenly manner or similar circumlocutions.

The immediate sequence of the same word may also be
avoided on account of the same aesthetic feeling: in German instead of morgen morgen one says morgen früh, similarly Dan. imorgen tidlig; correspondingly a repetition is avoided by using two different forms for 'morning' in English tomorrow morning, French demain matin, Italian domani mattino, which may be shortened into domattino. That is preferred to who after an interrogatory who (MEG III 4.85). - Bally LV² p. 51 says that in French, parallel to moi je me révolte, one would be expected to say nous nous nous révoltons with first an emphatic and then two weak nous, which would be obscure and ridiculous. Instead one says nous on se révolte. This, however, is hardly the whole explanation of the curious French substitution of on for nous, which is found in many instances; in Sandfeld, Syntaxe du Français Contemporain 1.335 ff . I find quotations like: 'Si encore on avait deux ou trois jours devant nous | On n'a pas nos jambes de vingt ans $\mid$ On ne se quitte pas une seconde, Myrtille et moi | Toi et moi, on est fait pour se marier'. One of the reasons for this use of on is evidently (as also noted by Bally) the desire to get rid of the heavy form of the verb in -ons, which (together with that used after vous) is often the only one deviating from the otherwise common and simple form: je, tu, il, ils [ $\left.\int a \cdot \mathrm{t}\right]$ etc. (Thus a similar cause as that which, according to Meillet (LH p. 149 ff .) in many languages has led to the substitution of an auxiliary + a participle for the earlier often irregular preterit.) But even combined these reasons do not exhaust the matter, for we find in Italian a similar tendency to use si ( $=$ Fr. on ) for 'we': in PhilGr 216 I quote passages like: 'la piazzetta dove noi si giocava | la signora Dessalle e io si va stamani a visitare', etc. The 'generic person’ (=I + everybody else) is thus substituted for the ordinary 'we'
( $=\mathrm{I}+$ some others). But this really leads us outside the theme of this chapter.
10.7. To return to the general subject of likes and dislikes: a preference for certain sounds or sequences of sounds is often decisive for the names parents will give their children or the names chosen by owners of their new-built villas.

An aesthetic feeling for what is reputed beautiful is found in the curious sladkoglasije (sweet-talking) in the Russian dialect of Kolyma, through which the phonemes $r, l$ and $r^{\prime}, l^{\prime}$ (palatalized $r, l$ ) are discarded in favour of $j$, though the greater part of the population are perfectly able without any difficulty to pronounce the discarded sounds, which they maintain are unbeautiful (Roman Jakobson, in Prague 4.266).

Sometimes a liking for a sound may be due not to its intrinsic qualities, but simply to the fact that it is associated with persons whom one admires or looks up to for some reason or other. But very often a dislike is caused by nothing else than that it is different from what one is accustomed to oneself. Villagers for that reason often ridicule the speech of a neighbouring village. In America elocutionists will teach the sound $\left[a^{*}\right]$ - as used in British English and New England - in words like grass, pass, laugh, while the sound $[æ]$ or $[æ]$ found in great parts of the U.S. is distasteful to them. When a Milwaukee teacher in dictating some words for spelling says, 'Now, children, don't [læ'f] when I say [laf]," she has the feeling that the vowel she has artificially learnt will sound ridiculous to her pupils, as it does perhaps to herself. Ridicule is a powerful weapon in linguistic development.

We find further aesthetic influences when some words are shunned by some people merely because their sound seems to them unpleasant; this, however, is largely individual. F. N. Scott, in an article, 'Verbal Taboos', in The School Review 20.361 ff. (1912) has from his students collected a number of words they disliked on account of their sound, e.g. lank, bosom, succinct, squalor, fulsome. (The two last-mentioned aversions are probably due to the sense just as much as to the sound, and the same may be partly true of lank.) A specially interesting instance is the following: "A considerable number of persons hate the plural form women, as being weak and whimpering, though the singular woman connotes for the same persons ideas of strength and nobility. It is for this reason perhaps that woman's building, woman's college, woman's club, and the like, have supplanted in popular speech the forms women's building, women's college, etc. It is noteworthy also that in the titles of magazines and names of women's clubs the singular in most instances has displaced the more logical plural."
10.8. Sometimes the dislike to a form or word may be due to unpleasant associations. Why has ass not the same vowel as pass, class, etc., but is generally pronounced [æs]? Probably because [a*s] would fall together with the (southern) pronounciation of arse. But as a term of contempt one may still hear [a*s]. Possibly the substitution of the word donkey as a common name for the animal may be due to the same association. In MHG after was used, nearly with the same sense as Eng. after, Dan. efter, Icel. eptir; but it was thought improper because often used with the sense 'backside', and nach (originally meaning near like

Eng. nigh) took its place (Öhmann, PBB 55, 230). But in compounds like afterrede, afterwelt the word survives.

It is possible that the rarity in recent times of the verb flee (never found, for instance, in Macaulay) is due to the homophony with flea; fly is used instead, but fled is in constant use.

On account of unpleasant associations closet is not used now as much as formerly for a small room (Storm Engl. Philologie 509), parts is avoided for the same reason, and in the 16 th and 17 th c. occupy was used so much in an obscene sense that decent people shunned it, see Sh H4B II. 4.161 and quotations in Farmer and Henley (also occupant, occupying-house), cf. also doing in NED. - The French précieuses said soixante sous to avoid the final syllable of écu.

But it is outside my plan here to enter more deeply into the subject of euphemism and veiled instead of blunt expressions for what is thought obscene or disgusting.
10.9. Something related to the gratifying of the aesthetic sense is seen when a linguistic change brings about something that is felt as a more or less close correspondance between sound and sense. Though the number of words in which the sound is symbolically expressive of the sense -echo-words - is very considerable in most languages (see Lang. ch. XX and the chapters on phonétique expressive in Grammont Phon. - the most valuable part of his book), and though many of these seem to have come into existence in comparatively recent times, it is not so easy to find many examples in which a word from not being expressive in this sense has become so later on. I shall here give a few of those mentioned in Lang. : the verb patter is from pater-
(noster) and at first meant 'repeat that prayer', but now it has come to be associated with echoic words like chatter, prattle, jabber and to mean 'talk rapidly or glibly'; hence also the sb. patter 'speechifying, idle talk'. Husky 'full of husks, of the nature of husk' now as an echo-word means 'dry in the throat, hoarse'. Tip, trip, sip also are more expressive than the words top, troop, sup, from which they are recent developments. Pittance now means 'a small allowance', and miniature 'a small picture', but originally the words were used for any pious donation and for any image painted with minium, without regard to size. These words have joined all those words in various languages in which the vowel $i$ symbolizes smallness (see my paper on the symbolic value of $i$, Lingst. p. 283 ff . Note also such pet-names for a child as kid, chick, kitten). Roll, G. rollen, and even more Fr. rouler, Dan. rulle, seems to possess a perfectly adequate sound for the movement denoted by the verb, but that cannot be said of Lat. rotulare, from rota 'wheel', from which they are derived. All these words thus have become echo-words inadvertently, as it were.

Through an increasing number of such echo-words the language has gained in picturesqueness, and it should be remarked that sound-symbolism really is a saving of effort to the learner and user of the language.

But the theme is not exhausted by echo-words proper. The sounds of many words outside this class are felt more or less vaguely as appropriate to the meanings connected with them. In his valuable little book Speech (1930) J. R. Firth gives on p. 50 ff . many apt illustrations of crossassociations in classes of words which strict etymologists of the traditional school do not treat as belonging together. The word slump is associated on the one hand with a great
many words, often of a pejorative kind, beginning with sl-: slack, slouch, slush, slaggard, slattern, etc. etc., and on the other hand with bump, dump, thump, plump, sump, etc. Similarly we have sn-words like sneak, snack, snatch, snip, etc., and equally suggestive groups with $s m$ - and $s w-$. Such instinctive correspondencies evidently heighten the value of a language as a means of expressing and communicating thoughts and feelings.

## 11. Fashion.

11.1. The preceding chapter on the aesthetic feeling leads us naturally to a consideration of the role of fashion in linguistic development. Some writers (Schuchardt, Meringer) long ago compared linguistic changes to the changes of fashion, and E. Tegnér even says that 'as a matter of fact a language is nothing but a fashion prevailing within a certain circle.' There is a good deal of truth in this, though one should not think of such things as the changing fashions in ladies' hats: hats and clothes can be, and are, changed much more rapidly than a language can, because it is necessary to have new clothes from time to time, and it is possible to buy a new hat every year: a society lady does not like to be seen with an old hat, while equally rapid changes in a language would make mutual comprehension impossible. Changes in language should rather be compared with those changes which take centuries, or at any rate decades, to penetrate, fashion in the furniture of our houses, or in table manners, or in literary styles and genres, or such changes in musical taste as are represented by the names Mozart, Beethoven, Wagner.

There is, however, one department of language in which changes are rapid, slang, catch-phrases, oaths, in which people, especially young people, can indulge their desire for something fresh and new, which they think funny or witty or chic, while the old expressions which they liked a few years ago, now appear to them stale and out-worn (cf. Mank. ch. VIII). We may think also of such shortlived literary fashions as euphuism and the corresponding movements in other countries (gongorism, préciocité, marinism).

A longer-lived literary fashion has now been evident for a century and a half, I am thinking of the growing preference for what may be called a democratic style: long involved sentences with many dependent clauses and many learned words and classical allusions have been giving way to short crisp natural sentences with a preference for the native vocabulary. In German, Dutch and the Scandinavian languages the same period has witnessed a similar movement with the disappearance of a great many foreign words through a sane purism, which is often half-conscious, while an excessive purism is often ridiculed. (With regard to purism I may be allowed to seize the opportunity to state briefly within a parenthesis what I take to be the 'energetic' point of view: the man who first introduces a foreign word into his mother-tongue generally finds it easier to repeat what he has learnt abroad or through a foreign book than to rack his brains for a fitting expression by means of native speech-material. But in thus following the line of least resistance as far as he personally is concerned he may often impose an unnecessary burden on his countrymen who may for a long time be saddled with a difficult term that is foreign to their usual language. But
the finding of an adequate native substitute generally requires a good deal of natural tact, which has too often been wanting in consistent purists.)

After this parenthesis we return to the question of fashion and its influence on language.
11.2. It should be definitely understood that the fashion point of view does not apply to the ultimate cause of a linguistic change, but rather to the way in which it spreads. People will, in language as in pther things, try to imitate their 'betters', thinking their way of talking more refined; the words and pronunciations used by the upper classes are taken as standards, and those found in the lower classes only are shunned as vulgar or plebeian ('common' in the derogatory sense of that word). And what is refined in this social sense is often thought beautiful or nice by one nation only, no matter what it may be from an objective point of view (if objectivity can be found in matters of taste).

Sometimes we see that vulgar and aristocratic pronunciations agree in opposition to the received standard: thus in the ending -ing, which is made into -in in the low classes as well as in a certain aristocratic (horsey) set: huntin', yachtin', etc. In the 18 th century -in was more in use among educated people than it is now (MEG I 13.11 ff ., cf. also above 10.4).
11.3. Fashion in pronunciation sometimes seems to have originated with women. Thus the forward pronunciation of ME long $a$, which has now become [ei], began before 1600; in 1621 Gill, who himself made only a quantitative distinction between mal and male, mentions the sound $e$
in lane, cambric, capon as found in "nostræ Mopsæ [?] quæ quidem omnia attenuant." Similar utterances by Sir Thomas Smith (1567) and Mulcaster (1582) are quoted Lang. p. 243. According to Trubetzkoy (Prague 7.21) women in the Mongolian dialect of Darnhat shift all back and central (mittlere) vowels somewhat forward.
11.4. The whole question of fashion in language has recently been taken up in an original way by the Dutch linguist H. L. Koppelmann, Die Ursachen des Lautwandels (Leiden 1939). As the title shows he is one of those writers who primarily think of sound-changes rather than of other linguistic changes. To him the essential thing is not articulation, but the acoustic impression, the 'ring' (klang) of a sound, but much of what he says of this opposition and on phonetic questions in general seems to an old phonetician like myself greatly exaggerated or erroneous. He ascribes phonetic changes partly to climate, but chiefly to changes in fashion or national taste or preference for certain sounds. This he connects with national character, on which he speaks at great length and in a way that I shall not attempt here to summarize: though much seems perfectly just I have sometimes a feeling that the connexion between national characteristics and phonetics is a little loose: we are here, as it were, skating on thin ice. Italian to him is a typical example of aesthetically disposed languages (ästhetisierende sprachen), but of course its characteristic sounds have not been consciously thought out (ausgetüftelt). A transition from $a$ to $o$ is found only in rude or subjugated nations without any real taste or dignity; the vowel $a$ impresses him as festive, official, even majestic. Some languages delight in rough sounds like German (ach) and Dutch,
others are more polished (glatt). The importance of a rising or falling rhythm is insisted upon in connexion with a nation's disposition to or dislike of rhetorics. On p. 79 ff . he divides languages into three groups, which he calls
(1) 'diskretionssprachen', suitable for being understood even when spoken very low, these are found in countries where the manner of living and the arrangement of the houses rarely make isolated conversation possible; these languages have no strong stress and incline to preference for voiced consonants.
(2) 'interieursprachen', spoken where climate and the arrangement of houses favour isolated conversations: strong stress and preference for voiceless consonants.
(3) 'rufsprachen', spoken especially by peoples living on small islands; tendency to extreme phonetic distinctness with long words and an excessive number of vowels; no strong stress, many voiceless explosive consonants and spirants.

Much of what the author says of these three types is interesting (thus the mention of Hawaiian as a typical rufsprache), but much seems extremely doubtful, and he himself is afraid that the reader will receive an impression of confusion from his survey and description of languages. When he says that French in contrast to Spanish is wanting in clearness (deutlichkeit) so that a man who reads French fluently is completely bewildered by the spoken language, I surmise that this is due to the different characters of the two orthographies and to defective teaching of French on the basis of the written language: if the author had been from the beginning taught on a phonetic basis with a proper sound-notation the result would have been different. Spoken

French has always appeared to me uncommonly distinct, much more so than many other languages. The book is full of clever suggestions, but they have not been carefully thought out in every detail. Much of it does not touch upon the subject of this treatise.

## 12. Phonologists.

In the very first program of the phonological school, which has of late years played such an important part in linguistic studies (Actes du $1^{\text {er }}$ congrès international de linguistes, 1928, p. 33 ff.) the authors, Jakobson, Karcevskij and Trubetzkoy, say that the problem should be faced why changes take place (le problème du but . . . du finalisme des phénomènes phonétiques). We must according to them leave the rut of the young-grammarians who think that sound-changes are accidental and involuntary and that language does nothing designedly, sound-history being considered as a series of blind destructions, disorderly and deprived of any purpose. In contrast to this view they say that we must more and more take up the question of purpose and interpret phonetic changes teleologically, giving up the mechanistic conception. This would seem to be grist to my mill.

As a matter of fact one finds here and there in the publications of the phonological school teleological views expressed, see thus Prague 4.265 Jakobson (not very clear), 4.301 Sommerfelt and van Ginneken, 302 Bühler, ib. 8.268 Gougenheim, 298 Trubetzkoy and van Wijk. I was especially interested in Mathesius's remark 4.302 about the importance in Germanic languages of the beginning of words as con-
trasted with Czech, which simplifies initial consonantal groups while preserving end-consonants because they play an important role in morphology.

Phonologists often speak of a disturbance or disarrangement of the phonological system by a sound-change and of a reaction through which equilibrium is re-established. Let me add one example of the way in which a sound developed through rapid pronunciation has been 'phonematized', i. e. adapted to the phonological system of the language concerned. When an [u] loses its syllabic value before another vowel it would naturally become [w], but if this phoneme is not found in the system, [v] may be substituted. Thus we can explain Ital. rovina from ruina, vedova from vidua, Dan. vg. Lovise for Luise and uvartig for uartig.

Still it must be confessed that my point of view is different from that of the phonologists. They are interested exclusively in the phonematic systems and their shiftings; they speak of teleology in bringing about a harmonic vowel or consonant system arranged in their triangles and squares and correlations, but do not really discuss the question whether such changes constitute an advantage to the speaking communities, whereas this question is my chief concern: my interests in this treatise therefore centre round other linguistic departments than theirs, morphology and syntax, rather than the sound-system. In saying this there is, of course, no disparagement of the valuable new blood infused in linguistics through the studies of the phonological school.

The preoccupation with phonology also manifests itself when Trubetzkoy (Prague 8.5 ff .) lays down the lines for a future artificial international language: he speaks only of what sounds
should be chosen as most universally distinguished, without considering at all the necessity of including in such a language all the words that have already become international and which at least European-American civilization cannot do without, but which often contain sounds that he would not admit, e. g. real, ideal, bank, telegraf, etc., with $r, l, d, b, g, f$.

## 13. Conclusion.

13.1. This is an old man's aftermath: he has returned to ideas that occupied him 50 years ago, and has tried to supplement what he said then and on later occasions. The whole is thus a series of variations on an old theme. Linguistic changes should be measured by the standard of efficiency judged chiefly according to the expenditure of energy, mental and physical, both on the part of the speaker and of the recipient. A series of phenomena have been treated, but throughout the treatment has been realistic and has dealt with facts, not fancies: the whole book contains not a single one of those starred forms that are found so often in linguistic work in attempts to reconstruct what has presumably lain behind the actually observed states of languages. This book moves wholly in the broad daylight of history, nearly always in the best-known European languages.
13.2. Linguistic changes are due to various factors which are not always easy to keep distinct, and the results are of many different kinds. In this volume I have chiefly considered the beneficial ones.

Shorter forms, which are therefore easier to handle, are in most cases produced by what has above been bluntly
called human indolence: slurring over and indistinct pronunciation of syllables that are intrinsically superfluous for the understanding of the whole (note stump-words, 3.6 f .); assimilation also often leads to shorter forms.

More regular forms are to a great extent due to the influence of analogy. They are evidently easier to learn and to remember than irregular ones.

More precise and distinct forms are as a rule due to the fear of being misunderstood or of not being understood in every particular; thus homophones are often discarded (4.3 f., 5) and differentiations are utilized glottically (7).

Smoother and more euphonious forms may be due to assimilation and sometimes to the aesthetic factor, which also to some extent is productive of expressive words in which the sense is symbolized in the form.
13.3. As a paradigm of the interplay of various factors in producing fewer, simpler and more regular forms we may take an OE and the corresponding modern English verb.
Inf. ceosan
Pres. ceose
ciest

ceosap $\quad$| choose |
| :--- |
| Pres. Subj. ceose |
| ceosen |

The net result in this case of a thousand years of linguistic evolution is an enormous gain to any user of the English language, because instead of being encumbered with an involved grammatical structure he can express the same ideas in a comparatively much simpler and handier way: the same initial sound, two vowels instead of four, the same sound $[\mathbf{z}]$ instead of three, no plural ending.

But I want to emphasize once more the fact that many of the small changes which help in the long run to bring about such bencficial results are, when looked upon isolatedly, nothing but momentary 'blunders' in an individual's speech and may thus be considered infringements of the linguistic norm which he otherwise observed in common with all his countrymen.
13.4. Outside the scope of this treatise lies the rise of the great national languages spoken by many millions (cp. Mank. p. 76). This too is a progressive tendency, for it is an advantage to anybody to give up his small parochial dialect and adopt the national standard language, by which he is enabled to get into touch with an infinitely greater number of people-not to mention the greater intellectual horizon offered in this way and the many social advantages, often of a material kind, which may be attended with the giving up of the local way of speaking. But this, I need hardly say, is not the same thing as pretending that the national language is intrinsically superior to local dialects: these may contain features that are in themselves of greater value than the corresponding features of the common language, e.g. picturesque, vivid, expressive words, and they may in some particular points be more advanced than the standard language, in which a conservative or
even reactionary tendency is not infrequently fostered by its extensive use in literature.

No regard has here been paid to improvements in spelling, which in some languages have been considerable while in others they have been very slow and insignificant indeed.

In a period when pessimism and misanthropy are as it were forced on one because great nations are bent on destroying each other by the most diabolical means without the least feeling of pity for human suffering, and when all hopes of civilized and peaceful international cooperation are crushed for a long time to come-in such a period it has been a kind of consolation to me to find out some bright spots in the history of such languages as I am most familiar with. All is not for the worst in the only world we know and in which we have to live on in spite of everything.

## ABBREVIATIONS OF BOOK-TITLES

My own Books.
$\mathrm{GS}=$ Growth and Structure of the English Language (Leipzig 1939).

Lang. $=$ Language, its Nature, Development and Origin (London 1922).

Lingst. = Linguistica (Copenhagen 1933).
Mank. $=$ Mankind, Nation and Individual (Oslo 1925).
MEG $=$ Modern English Grammar (I-IV Heidelberg, V Copenhagen 1909-1940).
PhilGr $=$ The Philosophy of Grammar (London 1924).

## Other Works.

Bally LV = Bally, Le Langage et la Vie (see 1,3).
Diez Gr $=$ Fr. Diez, Grammatik der romanischen sprachen (Bonn 1876).

EStn $=$ Englische Studien (Leipzig 1877 ff.).
ESts $=$ English Studies (Amsterdam 1919 ff.).
Frey Fautes $=$ H. Frey, La Grammaire des Fautes (Paris 1929).
Grammont Phon. $=$ M. Grammont, Traité de Phonétique (Paris 1933).

Havers HES $=W$. Havers, Handbuch der erklärenden Syntax (Heidelberg 1931).
Meillet $\mathrm{LH}=\mathrm{A}$. Meillet, Linguistique Historique et Linguistique Générale (Paris 1921).
MSL $=$ Mémoires de la Société de Linguistique (Paris).
$\mathrm{PBB}=$ Beiträge zur Geschichte der deutschen Sprache (Halle 1874 ff.).
Prague $=$ Travaux du Cercle Linguistique de Prague (Prague 1929 ff .).
Vendryes $\mathrm{L}=\mathrm{J}$. Vendryes, Le Langage (Paris 1921).

## ADDITIONS AND CORRECTIONS TO ANALYTIC SYNTAX

P. 15, 1. 7 from bottom after unil. add Cf. p. 102.
P. 17, l. 7 from bottom read G. Die sterne, die begehrt man nicht.
P. 18, 1. 2 from bottom add G. German.
P. 20, l. 11 from bottom read ein vetter von mir.
P. 27, 1. 20 read A red-hot iron $2(2-2)$ 1; a blue-green dress $2(3-2) 1$.
P. 29, 1. 12 primary read secondary.
P. 35, 1. 13 read Er nimmt teil an dem gespräch.
P. 39, 1. 7 read forstanden.
P. 39, 1. 2 from bottom add Cf. $\mathbf{1 2 . 5}$.
P. 45, l. 9 from bottom read Die sterne, die begehrt man nicht.
P. 47, 1.5 add Cf. 23.5, p. 81, addition.
P. 53, 1. 21 read Ces dispositions prises.
P. 68, 1.5 add L. memoria nostri tua X $2\left(\mathrm{O}^{2}\right) 2\left(\mathrm{~S}^{2}\right)$.
P. $81,1.6$ add

He speaks as he did yesterday SV $3\left(3^{\mathrm{c}} \mathrm{SV} 3\right)$.
Tom is as big as John, F. Louis est aussi grand que Jean. G. Max ist ebenso gross wie Hans S V P $3\left(323^{c} \mathrm{~S}_{2}\right)$.
I hate him just as much as he me SVO $3\left(5433^{c} \mathrm{~S}_{2} \mathrm{O}_{2}\right)$.
P. 82, l. 15 socoro read socorro.
P. 102, l. 10 from bottom An exact read A more explicit.
P. 104, 1. 12 from bottom read they do not, however, constitute "parts of speech", but like V are included on account of their syntactic value.
P. 104, l. 1 from bottom are certainly read may be considered.
P. 107, 1. 13 read For it is, indeed, curious that, etc.
P. 110, Casc. Reference should be given to Linguistica, p. 322 ff . ( $=$ System of Grammar, p. 23 ff .).
P. 111, 1. 17 read nebenordnung.
P. 127, 1. 9 read Black-blue dress 2(3-2) 1.
P. 128, l. 14 from bottom read $F$. une partie du vin, un grand nombre de nos amis.

