

Im Laufe der Zeit wurden dann die Hochttonformen *verallgemeinert*. Diese Verallgemeinerung beruht auf der Macht der *Analogie*.

Die durch die Tonbewegung bedingte Wandlung der Vokale hat im Ne. nicht einzelne Laute ergriffen, sondern das *ganze Vokalsystem*. Das, was wir "Lautgesetz" zu nennen pflegen, bedarf einer neuen Fassung: Der *eine* Vokal der älteren Sprache wird nicht zu *einem* Vokal der neueren Sprache. Er entwickelt sich vielmehr zu verschiedenen Lauten entsprechend der Höhe oder Tiefe der Tonbewegung.

In der Tonbewegung drückt sich das Gefühlsmässige, das Seelische in der Sprache aus. Der Vokalwandel ist also nicht mechanisch, sondern *seelisch* bedingt. Und das ist eine besonders erfreuliche Erkenntnis, angesichts der Starrheit, die der Sprachwissenschaft vielfach eigen ist. Die Tonbewegung und damit der Vokalwandel ist ein Ausfluss der *Ausdruckstätigkeit*. Die Ausdruckstätigkeit treibt die Sprachentwicklung voran. Übrigens nicht nur die Entwicklung der Vokale, sondern die ganze Sprachentwicklung. Und weiter: was anfänglich nur bei Hochtton oder Tieftton galt, wird verallgemeinert. Bei dieser Verallgemeinerung bleibt die Sprache nicht stehen. Wieder entwickeln sich neue Formen unter dem Einfluss der Tonbewegung, und wieder kommen neue Verallgemeinerungen. So geht es weiter ohne Ende.

Hier mache ich Halt. Ich habe mit strenger Beschränkung aufgebaut auf das, was wir an der lebenden englischen Sprache beobachtet haben. Ich habe nur Erscheinungen zu Grunde gelegt, die wir untersucht haben: die Vokale im Englischen. Aber ich hoffe, Sie haben an diesen kurzen Ausführungen—trotz ihrer Einschränkung auf ein enges Gebiet—erkannt, dass das gesamte Problem des Lautwandels neu aufgerollt werden muss. Die Lautlehre, die als ein erledigter und sehr trockener Teil der Sprachgeschichte gilt, bekommt ganz neues Leben. Und zu dieser Verlebendigung kann die Experimentalphonetik mit ihren objektiven Methoden sehr wesentlich beitragen. Es muss darum eine enge Verbindung hergestellt werden zwischen Experimentalphonetik und Sprachgeschichte.

3. Prof. HANS KURATH (Providence, U.S.A.): *The Linguistic Atlas of the United States and Canada*.

The Linguistic Atlas of the United States and Canada is one of the major research projects sponsored by the American Council of Learned Societies. The project was initiated by the Linguistic Society of America and the Modern Language Association of America, jointly, and formulated tentatively in a conference held in connexion with the Linguistic Institute of the Linguistic Society of America at Yale University in the summer of 1929.¹ The final definition of the scope of the survey and of the method to be employed in gathering and

¹ H. KURATH, *Report of the Conference on a Linguistic Atlas of the United States and Canada*, Bulletin no. 4, Linguistic Society of America (September 1929).

organizing the material for publication was entrusted to a committee of which the present speaker is chairman.¹

The short time at my disposal forbids my entering upon a fuller account of the objectives and the scope of the plan and of the work already accomplished. For this information I may refer you to the periodic reports of progress in Bulletins 15, 18, 20 and 23 of the American Council of Learned Societies (Washington, D.C.), and in *Dialect Notes*, vol. VI, part 2 ff., and to my brief summary of our activities up to the spring of 1934 in the *Proceedings of the American Philosophical Society*.² By now, all of the New England material is in hand and the greater part of it has been prepared for publication in map form. Moreover, a preliminary survey of the South Atlantic States (from Maryland to Georgia) has been completed and the systematic survey of Virginia is well under way.

In the main, the approved method of GILLIÉRON'S *Linguistic Atlas of France* and of JABERG and JUD'S *Linguistic Atlas of Italy and Southern Switzerland* is used by the staff of the *Linguistic Atlas of the United States and Canada*. The material is recorded in the field by trained phoneticians and will be presented on 750 maps. There are, however, three notable innovations which were suggested by the peculiar linguistic situation in America and which are proving very fruitful.

(1) Since folk speech and cultivated speech are very close together in recently settled and democratically organized America and since there is a constant give and take between the ill-defined class dialects, at least two informants are chosen in each community, one aged and unschooled (if possible, illiterate) and one middle-aged and possessing a grammar school or even a high school education. Moreover, in about twenty-five cities cultured informants have been included in New England. The *Linguistic Atlas of the United States* will thus present the speech of three social levels. This device is proving very helpful in determining linguistic trends locally and over larger areas.

(2) The informants are not asked to give the dialectal equivalents for expressions of the literary language, as was done in Germany, France, and Italy. This method would be disastrous in America because of the almost universal familiarity with upper-class speech which differs comparatively little from folk speech. They are rather asked to name objects, actions, qualities, etc. which the investigator suggests by means of description, of gesture, and of linguistic context.³

(3) The phonetic field records are supplemented by phonographic records of connected speech. In New England more than half our informants talked into the microphone for us on a great variety of subjects of their own choosing. These nearly 700 double-faced twelve-

¹ H. KURATH, "The Linguistic Atlas of the United States and Canada," in *Essai de bibliographie de géographie linguistique générale*, edited by JOSEPH SCHRIJNEN for the Comité International Permanent de Linguistes. Nimègue, 1933.

² H. KURATH, "The Linguistic Atlas of New England," *Proceedings of the American Philosophical Society*, vol. LXXIV, no. 3 (August 1934).

³ B. BLOCH, "Interviewing for the Linguistic Atlas," *American Speech*, vol. X, no. 1 (February 1935).

inch aluminum discs constitute a permanent objective record of New England speech. All of these records were made by Professor MILES L. HANLEY.¹

I shall now throw a number of slides on the screen to illustrate by means of charts based upon the maps of the *Linguistic Atlas of New England* the geographical distribution of certain lexical and phonetic features in New England. I shall also suggest an historical interpretation of the situation.

Unfortunately the lines leading back to the Mother Country, to England, and to Northern Ireland, will remain vague and tentative until a linguistic atlas of the British Isles is made, the monumental works of A. ELLIS and of J. WRIGHT notwithstanding. It is important to realize that the various types of American English are only in part derived from the same sources as literary and standard British English, for the great majority of colonists of the seventeenth century, whose descendants remained the most influential element in America during the eighteenth century and after, did not speak the cultivated speech of London, but various English dialects or provincial standards. These we know only very imperfectly through contemporary evidence. They must be reconstructed very largely on the basis of a linguistic atlas of English folk speech of the present day.

The following lantern slides were shown, but are not reproduced here. References to slides published elsewhere are given in the footnotes.

1. Page 33 of the Work Sheets of the *Linguistic Atlas of New England* and a record of this page by Dr B. BLOCH from Northern Vermont. Lexical variants are provided as an aid to the field workers and, whenever needed, either a fixed context or a definition is given. The field workers record impressionistically; the same expression is often taken down in several contexts and under varying accentual conditions. Normalization is strictly avoided.

2. An experimental sample map of the *Linguistic Atlas of New England*. The boundaries and the topographical features of New England are reproduced in a light green tint and the linguistic entries are superimposed on the map in black. For each community there is a block of two or three lines, each line presenting the response(s) of *one* informant. The more old-fashioned speaker is given first place. The legend and the commentary will appear on the same sheet as the map.

3. A map showing the original settlements (1620-45) and the later dissemination of the population. There are three groups of early settlements: (a) the coastal settlements in the East, (b) the Connecticut Valley settlements, (c) the settlements on Long Island Sound in Western Connecticut. These three major areas of settlement are still more or less clearly reflected in the distribution of dialect features.²

¹ M. L. HANLEY, "Phonographic Recording in the Field," in *Materials of Research*, prepared by a joint committee of the American Council of Learned Societies and the Social Science Research Council (accepted for publication).

² H. KURATH, "The Linguistic Atlas of New England," *Proceedings of the American Philosophical Society*, vol. LXXIV, no. 3 (August 1934).

4. A map of New England showing the location of the 225 communities in which field records were made. The network is more close-woven in the older and the more populous southern portion than in the north. Nearly all the original settlements have been included. In selecting representative communities in derivative areas the provenience of the early settlers was taken into consideration.¹

5. Words for the seesaw.²

6. Words for the earthworm.³

7. The vowel in *calf*. Low-front *a* and, less commonly, low-central *ɑ* are widely used throughout the eastern and the central area. Western New England has predominantly *æ*, as do the derivative areas to the west of New England. The vowel in this word is, of course, ultimately derived from ME. *a*+1.

8. The vowel of *class*. In words of this type the *a* area is greatly restricted. It includes only the eastern seaboard of New England and Narragansett Bay and the area in Maine settled from the Massachusetts seaboard shortly after the Revolutionary War. Other sections of New England have *æ*.¹

Dr HERBERT PENZL, who has made a careful study of this question, giving proper attention to the history of the settlement of New England, is doubtless right in assuming that the *a* type was *not* imported from England in the latter part of the eighteenth century, as is so commonly believed.⁴

9. The vowel in words of the type of *bird*.

The remaining four slides are taken from the dissertation of Dr BERNARD BLOCH, of the Atlas staff, dealing with the history of ME. post-vocalic *r* in New England.⁵ 48,000 definitely localized instances recorded by our field workers were used in preparing this study.

The first of these slides shows the present distribution of strong and weak retroflexion in the vowel of words like *bird*, *Thursday*, *worm*, etc. Strong retroflexion, i.e. the type of *bæd*, predominates throughout Western New England. Weak retroflexion and much fluctuation is characteristic of the Connecticut Valley. Eastern New England, on the other hand, has an unretroflex vowel of the BE. type. There are here, however, certain secluded communities in which retroflexion predominates (Martha's Vineyard, Marblehead, Cape Ann).

10-11. The derivatives of the post-vocalic *r* as in *hard*, *beard*, *fair*, etc. show an analogous distribution, but retroflexion is somewhat less widespread.¹

¹ H. KURATH, "The Linguistic Atlas of New England," *Proceedings of the American Philosophical Society*, vol. LXXIV, no. 3 (August 1934).

² H. KURATH, "New England Words for the Seesaw," *American Speech*, vol. VIII, no. 2 (April 1933).

³ R. S. HARRIS, "New England Words for the Earthworm," *American Speech*, vol. VIII, no. 4 (December 1933).

⁴ HERBERT PENZL, *The Development of ME. ä in New England Speech*. Diss. University of Vienna, 1934 (in typescript).

⁵ BERNARD BLOCH, *The Treatment of ME. Final and Preconsonantal R in the Present-Day Speech of New England*. Diss. Brown University, 1935. To be published by the Linguistic Society of America (Language Dissertations).

12. Trends in the pronunciation of earlier post-vocalic r.

The present situation with regard to retroflexion in New England is not old. The unsettled usage of our informants in Central New England and the confinement of retroflexion to certain isolated communities in Eastern New England point to the fact that changes have been going on and are now taking place. When the speech of the younger and better educated informants is compared with that of the older unschooled generation, the trends are clearly in evidence: (a) Along the eastern seaboard retroflexion is losing ground; (b) in the central area, adjoining the area of strong retroflexion, retroflexion is spreading.

What will the ultimate outcome be? Will the east completely lose retroflexion and then, perhaps after generations, be flooded by the wave of retroflexion spreading eastward from Western New England, which is in agreement with the vast territory to the west?

Here again one would like to have a more reliable record of the dialects of England than ELLIS and WRIGHT offer before undertaking the task of reconstructing early colonial conditions.

4. Dr L. KAISER (Amsterdam): *The shape of the palate and its effect on speech sounds.*

Concerning the relation between form and function, between anatomical and physiological properties, there is still great uncertainty. In various scientific periods the aspect of this relation has varied as materialism or idealism induced investigators to detect causality in one or the other direction. However, the existence of such a relation was never denied.

So it seems justifiable to consider whether there is any definite relation between the function of speech and the shape of the speech organs. As far as the voice is concerned, the general opinion is, that there must exist a close relation between the pitch and timbre of the voice and the dimensions of the larynx. As regards speech in a stricter sense, this question has been usually suppressed owing to the desire to consider speech from the point of view of language and not as a function of the speech organs. Among the investigators who have described the properties of speech in relation to the speech organs, I mention VAN GINNEKEN and STETSON; among those who have described the form of the face in relation to speech, HELLPACH.

It was in following out the principle mentioned, that I tried to ascertain whether there is a constant relation between the shape of the palate and special properties of speech.

The first thing I wanted to know was, What is the shape of "the Dutch palate"? Here I found no data at all. I am fully aware of the fact that the Dutch are not a race or a stock, still less a pure race; they are no more and no less so than the other European nations. Nevertheless I thought it useful to have certain facts concerning what I have indicated, and should like to continue to indicate, as the Dutch palate, i.e. the palate of a group possessing one definite language.

From the partly contradictory data given in the literature of the subject, by dentists and laryngologists, and from special articles by geneticians, it appears that in the case of the human palate the share of *Umweltfaktoren* must be very considerable, much more so than for other parts of the human skull.

If we wish to bring speech and palate into relation with each other, we shall have to consider rather definite groups of people, speaking the Dutch language in a definite way. In this case even the *Umweltfaktoren* will be similar to a certain degree, so that we may consider the group as a whole, even though it be a very complicated one. As I wished to know something about the relation between the shape of the palate and the normal Dutch speech I could not even take my subjects from the country, where a much more nearly pure stock is found, but where speech bears dialectal features.

So I compared the palates of 186 male and 186 female students of Amsterdam University. These subjects were young adults of 19 to 25 years of age, a few, however, being considerably older (up to 40). Most of them had a complete set of teeth. Several others, however, had had one or two teeth extracted. From the literature I gathered that the lack of a few teeth does not considerably alter the shape of the palate. Moreover it did not seem right to select for this purpose possessors of sound teeth only, because the others contribute just as much to the general character of speech.

The measurements were taken from Stent's negatives. I pass over the technique of measuring. I would only say that for this special purpose, it seemed unnecessary to take into consideration the *Frankfurter Horizontale*, which is indispensable in anthropological measurements.

To give you an impression of the manner in which the values of the different dimensions vary, I can show you the following curves.

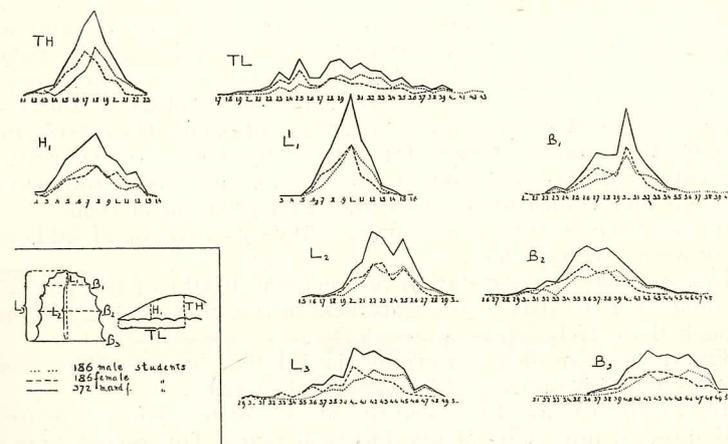


Fig. 1