

SOUNDLESS ARTICULATIONS

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1. Following the scheme of Plato, the functional linguists distinguish three components in the linguistic manifestation, i.e. a speaker, an utterance, and a listener.¹ Since the substantial properties transferring information from the speaker to the listener do not go beyond the range of the speech chain, we are allowed to state that articulations do not belong to the scope of exact phonology. The observation of the articulatory movements cannot influence either the segmentation or the classification of the substantial elements involved in the speech chain. In this sense of the word, phonemes are contained in sounds as the results of the given articulations.²

The morphemic level is another field often mingled with phonology. Since there are variants of phonemes and phonemes as such, we consequently have to distinguish between phonetic and phonemic allomorphs.³ Thus, different (r)-sounds in English give rise to some morpheme variations which will be called 'phonetic allomorphs', whereas the removal of the /a/-phoneme from {write} as compared with {writt-}, cf. *written*, calls into being variations which we shall name 'phonemic allomorphs'.

An allomorph can be conditioned by different context, cf. Fr. *le* and *l'*, Engl. *an* and *a*, or by different rate of speech, cf. Engl. *am* and *'m*, Germ. *-es* and *-s*. For the purposes of the present paper we shall distinguish three kinds of rate, which will be termed respectively: *lento* (= ¹), i.e. the slow rate, *moderato* (= ^m), i.e. the middle rate, and *presto* (= ^p), i.e. the quick rate. As typical examples of each of them let us adduce: an oration for ¹{}, a conversation for ^m{}, and a running commentary for ^p{}. To illustrate the three cases we take examples from English, French, and German:

<i>shall</i> ¹ {šæl} ^m {šəl} ^p {šl}	<i>je</i> ¹ {jə} ^m {j} ^p {š}	<i>stets</i> ¹ {šte:ts} ^m {šte.ts} ^p {štec}
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2. The object of the phonemic level established, we proceed to articulations releasing no sounds. We shall use the following signs to keep apart such realities as articulations, letters, graphemes, sounds, and phonemes: || || = articulations (as a complex of movements), ||__|| = soundless articulation, underlined = letter, <> = grapheme, () = sound, // = phoneme, {} = morpheme. These distinctions suggest some noteworthy generalizations shown in the figure below. It has to ex-

clude such unproductive possibilities as: 1. $\langle + \rangle = || + || = (+)$, 2. $\langle - \rangle = || - || = (-)$, and the impossible case: 3. $|| - || = (+)$, if the investigation is to be called linguistics at all. It considers, however, the following cases:

	Articulation	Grapheme	Sound
1.	+	$\langle + \rangle$	(-)
2.	-	$\langle + \rangle$	(-)
3.	+	$\langle - \rangle$	(+)
4.	+	$\langle - \rangle$	(-)

Ad 1. This correspondence is little known as yet, cf. Engl. *nestling* = $^m||nestliŋ|| = (nes-lin)$, Germ. *dampfst* = $^p||dampfst|| = (dam-fst)$, Icel. *hnippa* = $^1||hŋnipa|| = (h-ni-pa)$, Far. *vatns* = $^m||vaŋs|| = (va-s)$, Fr. *action* = $^p||aksjō|| = (a-sjō)$, Russ. *праздник* = $^m||prazdnik|| = (praz-nik)$.

Ad 2. There are everywhere discrepancies between the written and the spoken forms. We cannot expect to find a language with some tradition regarding its graphic fixation where there would be an invariable correspondence in the relation grapheme: phoneme.⁴ In our case we are interested in such situations where there are graphemes reflecting no sounds (and no phonemes), cf. Engl. *brought*, Germ. *sieht*, Fr. *viennent*, Russ. *сѣче*.

Ad 3. The so-called aspiration can serve as a typical example of this case, cf. Engl. *take* = $||theik|| = (theik)$, Germ. *kein* = $||khain|| = (khain)$, Icel. *bökk* = $||θōhkk|| = (θōh-k)$, Dan. *tom* = $||thom?|| = (thom?)$.

Ad 4. Least known among the four enumerated cases are just these. The following instances may illustrate them: Icel. *ekla* = $||ehkkla|| = (eh-kla)$.

3. Now the question is whether any consonant can be both double and long. There is no doubt that the nasals, the liquids, and the fricatives can be such. A different situation is with the sounds called stops: they cannot be long in the strict sense of the word. Any prolongation of a stop, cf. (*t d p b k g c é ž ě ě k' g' p' b' t' d'*), brings about a pause preceding the respective stop: (*-t -d -p -b -k -g -c* etc.). In this respect the available transcriptions are not reliable enough. Since we are accustomed to believe that every consonant can be long, we are compelled to draw a dividing line between the nasals, liquids, and fricatives on the one hand, and the stops on the other, cf.

A. The real long consonants:

Ital. <i>della</i> = (del:a)	Pol. <i>ssak</i> = (s:ak)	Icel. <i>gjamma</i> = (g'am:a)
<i>donna</i> = (don:a)	<i>zsa</i> = (z:a)	<i>kyssa</i> = (k'his:a)

B. The apparent long consonants:

Ital. <u>mozzo</u> = <u>mocco</u> = (mo-co)	Icel. <u>hitta</u> = <u>hihtta</u> = (hih-ta)
<u>fatta</u> = <u>fatta</u> = (fa-ta)	<u>brekka</u> = <u>brehkka</u> = = (breh-ka).

The pause just distinguished is not a non-articulation like that in *a nice* ≠ *an ice*. but a respective soundless articulation.

4. In the light of the distinctions carried out so far, we shall try to point out some more details about the soundless articulations in Modern English.

The maximum expressiveness on the part of the linguistic forms and the minimum effort exhibited by the speaker constitute a specific feedback: the quicker the rate of speech, the better it lays open all difficult articulations and helps to display the direction of the possible changes to come, like assimilation, dissimilation, metathesis, syncope and apocope. These processes have found their way into English more readily than into any other Indo-European language. In this connection let us call the synchronous exchange of one phoneme by another a substitution so as to distinguish it from transformation, which refers to subsequent stages and is thus a diachronic concept. In Present-Day English we witness many a substitution resulting from quick rate of speech. Let us adduce at least some of them: 1. ||č|| : ||š||, cf. *bench*, *crunch*, *Manchester*, 2. ||ž|| : ||z||, cf. *avenge*, *engine*, *change*, 3. ||ts|| : ||c||, cf. *gets*, *cats*, *meets*, 4. ||dz|| : ||z||, cf. *goods*, *beds*, *bends*, 5. ||hj|| : ||ç||, cf. *human*, *huge*, *Mayhew*, etc.

As to the syncopated forms, the following sounds disappear giving rise to the transient stage in the form of a soundless articulation:

1. ||t|| = (t) ∞ ||ṭ|| = (—) ∞ syncopation, cf. *beastly*, *Saintsbury*, *maladjustment*, etc.

2. ||p|| = (p) ∞ ||p̣|| = (—) ∞ syncopation, cf. *contempt*, *consumption*, *sempstress*, *sumpter*, etc.

3. ||k|| = (k) ∞ ||ḳ|| = (—) ∞ syncopation, cf. *cunctator*, *conjunct*, *succinet*, etc.

4. ||d|| = (d) ∞ ||ḍ|| = (—) ∞ syncopation, cf. *blindness*, *sandback*, *spendthrift*, *commandment*, etc...

The above picture permits to gain a deeper insight into the mechanism of the substitution in the three-consonant-groups, which do not tolerate a stop surrounded by a nasal or a liquid on the one side, and any other consonant on the other.

5. As already envisaged, the stops can be articulated without giving rise to a sound. The same is true of the so-called voiceless nasals. The phonetic and phonemic transcriptions do not make any difference between the soundless articulations and the sounds proper with regard to the nasals and their voiceless (= soundless) counterparts, cf. [ṇ ṃ ŋ̣ ɰ̣]. We shall try to investigate the case in Icelandic and Faroese, where they are taken for constituents of morphemes. Authors like S. Einarsson

and W. B. Lockwood name in the same breath [l̥r̥] and [ŋ̥ ɲ̥] and take them all for sounds.⁵ As known, the addition of sonancy can double the number of consonants, cf. $\binom{8}{+} = (b)$, $\binom{8}{s} = (z)$, etc., but the reversed statement does not prove true. The nasals constitute an exception to this rule. Deprived of their sonancy, they *eo ipso* become soundless articulations.

New Icelandic and Faroese undergo a far-reaching devocalization of their nasals and liquids. As concerns the latter case, the result is the abolishment of the respective sounds, whereas in the former case the results are the voiceless variations of (*lrl'r'*), cf. Icel. *hlýna* = (*hli:na*), *hlaupa* = (*h'löü:pha*), *hrina* = (*hri:na*), *-ir* = (*iʀ*), *-ar* = (*aʀ*). The transcription of the so-called voiceless nasals should be revised as it does not reflect the actual situation on the side of the linguistic form (signans, signifiant, reference), cf. Icel.

$$1. [\eta] = ||\underline{\eta}|| = (—) = /—/$$

barn [*bad.ŋ*] = (*ba-d-*), *hrafn* [*hrab.ŋ*] = (*hra-b-*), etc.

$$2. [\eta] = ||\underline{\eta}|| = (—) = /—/$$

hempa [*hem.pa*] = (*he-pa*), *fimmti* [*fim.ti*] = (*fi-ti*), etc.

$$3. [\eta] = ||\underline{\eta}|| = (—) = /—/$$

kringt [*hriŋ.t*] = (*hri-t*), *banki* [*bauŋ.ki*] = (*bau-ki*), etc.

The phenomena under discussion prove beyond any doubt that New Icelandic survives a far-reaching curtailing of its morphemes, providing the speaker with quite a number of the phonetic and phonemic allomorphs. In the present paper we confine ourselves to substitutions and curtailments within the soundless articulations, but the process is much more extensive. Icelandic orthography, which has undergone no reform, has preserved written records proving that the process in question is not a new phenomenon. In the instances just cited, the letters are underlined which are not pronounced any more, cf. *kempti*, *lambs*, *sands*, *kambdi*, etc.

6. Modern Faroese also abounds in phonemic allomorphs with the so-called 'surd nasals' (= soundless articulations). The following chief representatives are to be distinguished:

$$1. ||\eta|| = (—) = /—/$$

vatns = ||*vans*|| = (*va-s*), *mentan* = ||*mentan*|| = (*me-tan*), *høsn* = ||*hös.ŋ*|| = (*hös.-*), etc.

$$2. ||\eta|| = (—) = /—/$$

hampiligur = ||*hampili.jur*|| = (*ha-pili.jur*), *javnt* = ||*javnt*|| = (*ja-t*), *heim-sins* = ||*hajmsins*|| = (*haj-sins*), etc.

3. ||*ñ*|| = (—) = /—/

eymka = ||*eyka*|| = (*e-ka*), *langt* = ||*leñkt*|| = (*le-kt*), *banka* = ||*beñka*|| = (*be-ka*), etc.

4. ||*ž*|| = (—) = /—/

roynt = ||*rojñt*|| = (*roj-t*), *bonki* = ||*boñći*|| = (*bo-ći*) *skeinkja* = ||*skoñća*|| = (*sko-ća*), etc.

7. The results achieved in the present paper allow of some generalizing conclusions:

a) Soundless articulations cannot be taken for sounds and consequently for properties pertinent to phonemes. In the speech chain, they are distinctive only in as far as they constitute a pause.

b) The transcription signs should be limited to the sounds. Special signs should be used for the soundless articulations, if the latter are to be marked at all. At the present moment a linguistic investigation should necessarily distinguish between letters, graphemes, sounds, phonemes, and soundless articulations.

c) Linguistic changes can successfully be investigated synchronously. The picture becomes fuller if the soundless articulations are also taken into consideration.

d) The last conclusion concerns the Germanic languages. Each language of this group disposes of the soundless articulations, but New Icelandic, Faroese, and English are especially prone to exchange their stops for a pause in the way presented above. Modern Icelandic and Faroese do the same to their nasals.

NOTES

1. Cf. A. V. Isačenko, 'On the Conative Function of Language', *A Prague School Reader in Linguistics* 88f. (Bloomington, 1964).
2. For details see: M. Adamus, *Phonemtheorie und das deutsche Phoneminventar* 15—23 (Wrocław, 1967); 'Traitement phonologique des diphtongues de la langue anglaise', *Germanica Wratislaviensia* 69—81 (Wrocław, 1959) and 'Zum phonologischen Status des velaren Nasals in den neugermanischen Sprachen', *Kwartalnik Neofilologiczny* 12. 271—8 (Warsaw, 1965).
3. See the present author's: 'Dekodacja fonologiczna', *Germanica Wratislaviensia* 1—20 (Wrocław, 1966).
4. J. Vachek, 'Two Chapters on Written English', *Brno Studies in English* 1. 14ff. (Prague, 1959).
5. Cf. S. Einarsson, *Icelandic* 12—31 (Baltimore, 1949); W. B. Lockwood, *An Introduction to Modern Faroese* 15—23 (København, 1955).

RESUMÉ

Nezvučné artikulace

Článek rozlišuje mezi neznělými a nezvuchnými artikulacemi a poukazuje na to, že nezvuchné artikulace jsou zbaveny podstaty, a proto nemohou být považovány za fonémy. Autor zjišťuje, že islandština a faerština nahrazují své eplozivy a nazály nezvuchnými artikulacemi ve větší míře než kterýkoli jiný germánský jazyk (např. moderní angličtina, v níž se nezvuchné artikulace rovněž vyskytují).