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**ФОНЕТИЧЕСКИЙ МАРКЕР СОВРЕМЕННОГО ЛИНГВИСТИЧЕСКОГО ДЕЛЕНИЯ АНГЛИИ***Аннотация*

*Региональное деление Англии на север и юг, обусловленное историческими, культурными и экономическими предпосылками, всегда находило отражение в звучащей речи жителей страны. Сегодня традиционный британский произносительный стандарт, продолжительное время определявший имидж и восприятие страны за рубежом, отстает под натиском современных региональных типов произношения. В этом отношении конкурирующие наддиалектные формы на юго-востоке и севере Англии выступают более актуальными выразителями региональной идентичности молодого поколения англичан, проживающих к югу и северу от традиционной фонетической изоглоссы, маркирующей лингвистические границы двух диалектных областей.*

**Ключевые слова:** региональное деление Англии, фонологическая оппозиция /ʊ/–/ʌ/, региональная идентичность, наддиалектный тип произношения, формантный анализ.

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**A PHONETIC MARKER OF THE MODERN NORTH-SOUTH LINGUISTIC DIVIDE IN ENGLAND***Abstract*

*A North-South split of England, conditioned by history, culture and economic influences, has long been reflected in the spoken language. As Received Pronunciation has lost its cultural dominance, which once formed the country's official image, this study argues that it is giving way to multiple competing identities. In the North, a new mainstream northern language identity is developing to rival Estuary English in the South as a widespread speech code for modern generations. These two cultural identities are filling the linguistic spaces above and below the border established by the traditional FOOT-STRUT split.*

**Keywords:** North-South divide, phonemic opposition FOOT–STRUT, regional identity, mainstream type of pronunciation, formant analysis.

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**Introduction**

Phoneticians generally recognize the division of English accents into five major groups in the British Isles: the south of England; the north of England; Wales; the south of Ireland; and Scotland and the north of Ireland [5]. This division is only roughly justified geographically as the linguistic North comprises not only the northern area of England, but also most of the midlands [11]. Despite the general recognition that the drawing of regional linguistic boundaries is notoriously difficult and imprecise, it is relatively safe to say that, linguistically, the population of England is about equally divided between the North and the South and, as Wells notes, about half of the English speak with some degree of northern accent [12].

Linguists' focused interest on this issue seems to be inspired by the current process of increasing democratization of British society resulting in the flourishing of regional accents in popular culture as direct manifestations of a person's social identity. Trudgill points out that many people who in earlier generations would have abandoned their local accents in favour of classic BBC English speech no longer do so: "People who are upwardly socially mobile or who come into the public eye may still reduce the number of regional features in their speech, but they will no longer remove such features altogether" [11, P. 81].

**The phonemic opposition FOOT-STRUT**

This study primarily concerns the major phonological reason for the so-called "North-South divide", the linguistic border of which runs approximately from the Severn estuary in the west to the Wash in the east. This dividing line is in fact an isogloss marking the main distinctive feature of English accents, i.e. the northern limit of the FOOT-STRUT split in popular speech.

Wells, in his landmark three-volume book "Accents of English" (1982), first coined this term as he introduced his widely adopted comprehensive system of 24 keywords, each referring to a set of words sharing a certain phonetic context

for a particular stressed vowel. Under his system, the lexical set FOOT indicates a vowel in such words as *full*, *look*, *could*, and STRUT denotes a vowel in, for example, *cub*, *rub*, *hum* [12].

The FOOT-STRUT split refers to the division of the phoneme /ʊ/ into two distinct phonemes /ʊ/ and /ʌ/. In Early New English the short /ʊ/ was unrounded to /ʌ/, it lost its labial character in the majority of cases, e.g. *cup*, *bus*, *shut*. However, it could happen that in certain phonetic conditions this split did not take place if /ʊ/ was preceded by a labial consonant – / p b f / – and followed by / ɪ ʃ ʒ /, e.g. Middle English *putten* remained ['pʊtən] and then transformed into *put* [pʊt] in the New English period [5].

Historically the split of Middle English short /ʊ/ into two phonemes failed to take hold north of the mentioned isogloss – the imaginary boundary between the Severn estuary and the Wash. Wells specifies that this process of vowel change was carried through further south, further west, and further north, so that in the south of England, in Wales, and in Scotland a six-term system of short vowels was developed and, as a result, there appeared lots of minimal pairs like *putt* [pʌt] – *put* [pʊt], *cud* [kʌd] – *could* (strong form) [kʊd]. In the north of England a five-term system was preserved and such pairs of words rhymed [12].

The absence of the split and as a result the lack of a phonemic opposition between these short vowels has remained probably the most important pronunciation marker setting northern accents apart from southern ones. According to British phoneticians, the area in which FOOT and STRUT have the same vowel still comprises all of England north of this line with very few exceptions [1]; [2].

**Methodology**

This study is based on the formant analysis of acoustic properties of FOOT and STRUT vowels, i.e. height and advancement which are reflected in the values of F1 and F2 [9]. For the purpose of analysis, tokens of 9 young women from the South, South East and northern areas of England

were subjected to acoustic measurement with the help of Praat computer software designed for speech analysis and synthesis. A number of studies have observed the tendency for women to use more of the innovative and positively evaluated pronunciation variant than men. Very often this fact is seen as indicating women’s greater sensitivity to what is considered prestigious, i.e. women seem to lead men in the use of the incoming variant and set trends affecting the pronunciation standard in the future. The generalizations about gender and language variations, as well as the scientific value of female speech for empirical research are discussed in detail in Labov (2001) [7].

The wide corpus of the recorded unprepared speech data makes 92 min 23 sec. This study selected 184 tokens for close acoustic analysis. They included 78 instances of the stressed FOOT, among them *foot, took, look, good, put, book, hood, should* (strong form), *could* (strong form), *push* etc.

There are also 106 instances of STRUT; for example *suffer, suffering, studies, suddenly, stuff, above, Liverpoolians, other, touch, just* etc. All tokens of the two vowel variables were transcribed using IPA notation, and grouped according to the variant categories. Further quantitative analysis made it possible to estimate the distribution of variants of FOOT and STRUT on the basis of the aggregated scores for each speaker shown as rounded percentages below.

**Results**

**The FOOT-STRUT contrast in South and South East accents of England**

Table 1 and Fig.1 present the results of the formant analysis of FOOT and STRUT vowels in the tokens of females from the South and South East, and exhibit an obvious phonemic contrast between FOOT and STRUT vowels.

Table 1 – The mean F1 and F2 values of FOOT and STRUT variables of five young females from the South and South East (Hz)

	London		Brighton		Southampton		Guilford		Gravesend	
	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
FOOT	463	1713	600	1700	600	1800	500	2000	500	1900
STRUT	728	1633	820	1520	820	1570	763	1625	800	1383

The realizations of the STRUT vowel, although showing some variation between the speakers, appear to be quite open and centralized with  $F1_{mean} = 790$  Hz and  $F2_{mean} = 1500$  Hz. These formant values deviate somewhat from the standard  $F1 = 914$  Hz,  $F2 = 1459$  Hz [3] signifying a slightly raised

quality of STRUT which may be realized as [ʌ], [ɐ] and [æ] in the analyzed tokens. In Kent and East Sussex such back variants as [ɑ] and [ɒ] for STRUT are encountered, e.g. *another* [ə'naðə]  $F1 = 1000$  Hz,  $F2 = 1300$  Hz (Kent); *other* ['ɒðə]  $F1 = 800$  Hz,  $F2 = 1250$  Hz (East Sussex).

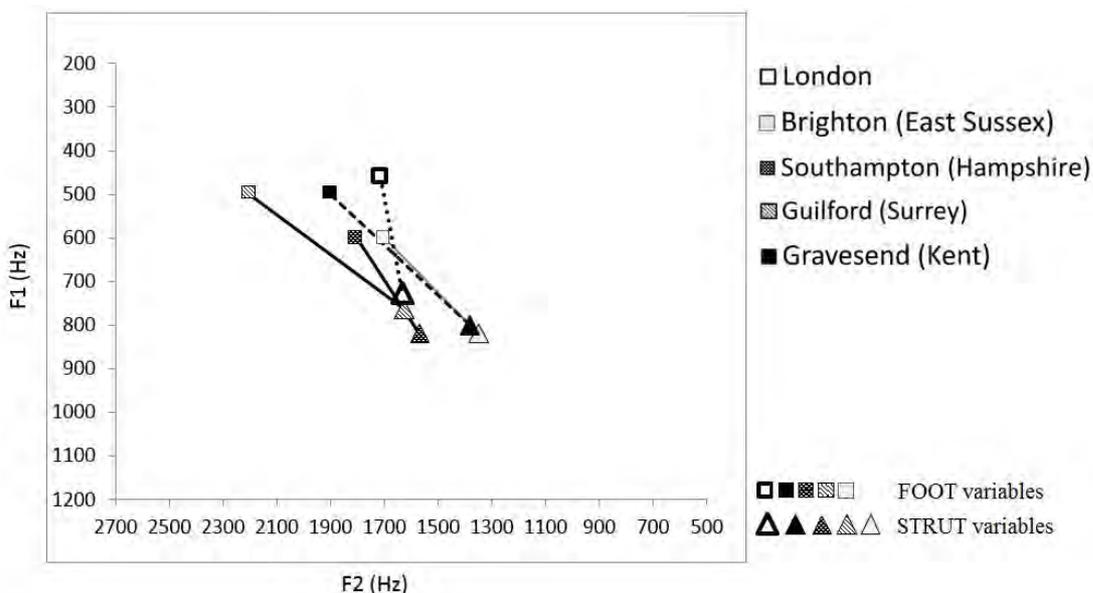


Fig. 1 – The FOOT-STRUT contrast in South and South East accents of England (mean values of the vowels of five young females)

The FOOT values  $F1_{mean} = 530$  Hz,  $F2_{mean} = 1860$  Hz demonstrate a more fronted and more open realization of the vowel than in RP ( $F1 = 410$  Hz,  $F2 = 1340$  Hz) [3]. But still the phonemic contrast between FOOT and STRUT is very vivid with the average 32% (F1) and 23% (F2) difference between the two vowels.

The female speakers from Hampshire, Surrey and Kent have even a more fronted character of FOOT than the subject from London. Most researchers are unanimous that London is

the most influential source of phonological innovation in England [2]; [5]; [10], but in case of the FOOT vowel, according to some phoneticians, younger speakers in London maintain the use of [ʊ], but South East regional speakers under 30 have unrounded, centralized variants, e.g. [ö] [10]. Thus there is much internal differentiation in the general South Eastern urban/suburban region. Linguists explain this state of affairs by the desire of some residents to exhibit a truly London identity if they commute daily to central

London for work, partly from an urge to “fit in” in the metropolis, and by the opposite wish of those who rarely visit the city centre and strive to preserve the regional contrast.

**The FOOT-STRUT contrast in northern accents of England**

Northern accents of England as mentioned above lack the phoneme [ʌ] and the opposition FOOT-STRUT altogether, as generally recognized by the majority of linguists. In this respect, northern accents of England are often viewed as more conservative and traditional, resembling to some extent the language of the ancestors, in contrast to those in the south where the population has been generally more mobile [11]; [13].

Nevertheless, the northern five-term system of short vowels is by no means stable and exhibits a great deal of variation. The ongoing changes in the northern vowel system are in many ways provoked by the dual motivation of younger speakers to follow fashionable pronunciation trends and at the same time to preserve their regional identity. The impact of modern technology is intensifying this trend, since modern young northerners can retain their territorial roots and take part in the wider culture and economy of the country

(and globally) through use of Internet and communication tools. They may have no need to follow the example of previous ambitious generations who felt obliged to go south to pursue economic opportunities. They aim, as Foulkes and Docherty (1999) also argue, to sound like northerners but *modern* northerners [6]. Therefore, it is clear that ongoing changes are not characterized by convergence towards the standard form, but rather towards a distinctively *northern mainstream* type of pronunciation with regional features adopted over a wide geographical area. Thus speakers try to avoid variants which they perceive to be particularly indicative of their local roots, and at the same time adopt some features which are perceived to be non-local but also identifiably northern. This process of establishing a northern mainstream type of pronunciation is clearly far from being complete and has influenced particular regions to a different extent.

Therefore the presence of the FOOT-STRUT contrast in northern accents of English is an open question for discussion as it may be realized as a continuum of variables which differ in terms of their advancement, height and roundness.

Table 2 – The mean F1 and F2 values of FOOT and STRUT variables of four young females from the North of England (Hz)

	Liverpool		Manchester		Newcastle		Leeds	
	F1	F2	F1	F2	F1	F2	F1	F2
FOOT	590	1365	791	1392	615	1416	451	1420
STRUT	645	1281	735	1400	588	1465	657	1727

The contrastive analysis of the FOOT-STRUT variables in the selected tokens of four young women from northern cities of England (Table 2, Fig. 2) shows that the most significant acoustic contrast between them was demonstrated by the female from Leeds, whose formant values for FOOT and STRUT differ by 31% (F1) and 18% (F2). The STRUT vowel appears as stressed [ə] with  $F1_{mean} = 657$  Hz and  $F2_{mean} = 1727$  Hz in her tokens. Phoneticians specify that such a realization is often heard in the north of England among middle-class speakers, particularly women when their speech is more self-conscious than usual [4]; [8]. So, it is probably

true to say that the speaker from Leeds does to some extent have a FOOT-STRUT opposition, but it is variably neutralized and sometimes of uncertain incidence. A stressed mid or half-close [ə] in STRUT, central and unrounded, is mentioned by Wells particularly as a characteristic of northern near-RP with its lack of distinction between the strong and weak forms of *but, does, must, us*. An open quality of the vowel in STRUT words, according to the linguist, does represent a genuine modification of a broad northern accent and is often adopted by the upwardly-mobile speaker [12].

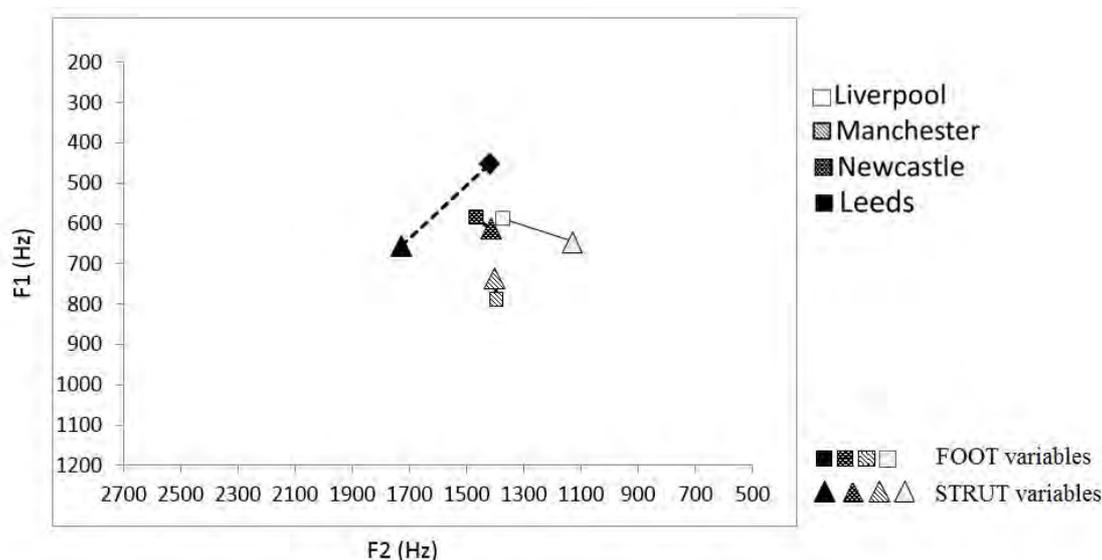


Fig. 2 – The FOOT-STRUT contrast in the northern accents of England (mean values of the vowels of four young females)

For the other speakers [ʊ] by far is the most common variant for STRUT, and is clearly the regional norm. The minimal FOOT-STRUT contrast (7% for F1 and 1% for F2) was observed with the female from Manchester whose STRUT variables appeared even slightly raised compared to FOOT realizations, which may be viewed as certain hypercorrection on the speaker's part. In case of the female from Newcastle, the phonological contrast between FOOT and STRUT in her tokens is practically absent and makes 4% for F1 values and 3% for F2 values. In this respect the emphasis on the absence of the FOOT-STRUT split in speech may even be seen as prestigious in northern accents of England and serve as a marker of a truly northern identity today.

Slightly more noticeable acoustic contrast between the FOOT and STRUT variables was traced in the tokens of the speaker from Liverpool. The STRUT vowel in her tokens is somewhat more open than [ʊ], but fully back and rounded, approaching the acoustic properties of [ɒ]/[ɔ], and deviates from FOOT by 9% in F1 values and 11% in F2 values. Collins and Mees consider Merseyside English different from other types of Northern English, as a result of a massive influx of in-migrants over the last three centuries from two Celtic countries – southern Ireland and neighbouring North Wales [1]. Researchers note, however, that the [ɒ] variant in the STRUT set is quite possible in northern accents of England, though it is used mainly by females on an occasional basis (usually in words like *one, none, once, money, slush, other, mother*, etc.). Stoddart, Upton and Widdowson find the [ɒ] variant in the STRUT set of

particular interest, as it is somewhat closer to standard [ʌ] and opens up the possibility of a move from [ʊ] towards [ʌ] and for the FOOT-STRUT split to be carried through [8].

#### Conclusion

The variation of the vowel STRUT in the South East and North of England clearly demonstrates the phonological antagonism of two large geographical areas and existence of two competing mainstream sub-systems of the English language, each reflecting strong cultural and social identities of the speakers, formed in part from differing economic experiences associated with the historical development of the industrial revolution. The FOOT-STRUT split, as the key phonological process, in many ways resulted in the formation of today's stereotypical southern and northern types of pronunciation, and consequently in a division of England into the North and the South. As the cultural dominance of a southern-based elite has weakened, speakers in all parts of the country no longer abandon their regional forms in favour of the prestige of standard pronunciation.

In its place, there is developing a tension between speakers' desire to continue signaling loyalty to their particular community by using local speech norms, and a concurrent urge to appear outward-looking and less parochial by adopting a broader regional speech and identity. In the South, this manifests in the spread of Estuary English, while in the North it takes the form of the previously mentioned mainstream northern accent. In this respect, the absence of the FOOT-STRUT phonological opposition may be viewed as prestigious in the north of England as this feature is crucial in establishing the northerners' regional identity.

#### Список литературы / References

1. Collins B. Practical phonetics and phonology. A resource book for students / B. Collins, I.M. Mees. – London and New York: Routledge. Taylor & Francis Group, 2003. – 305 p.
2. Cruttenden A. Gimson's Pronunciation of English / A. Cruttenden. – London: Hodder Education. An Hachette UK Company, 2008. – 362 p.
3. Deterding D. The formants of monophthong vowels in standard southern British English pronunciation / D. Deterding // Journal of the International Phonetic Association. – 1997. – Vol. 27. – P. 47.
4. Docherty G.J. Derby and Newcastle: instrumental phonetics and variationist studies / P. Foulkes, G.J. Docherty // Urban voices. Accent Studies in the British Isles. – London and New York: Routledge, 1999. – P. 47-71.
5. Hughes A. English Accents and Dialects / A. Hughes, P. Trudgill, D. Watt. – Holder Education, 2012. – 207 p.
6. Foulkes P. Urban Voices – overview / P. Foulkes, G.J. Docherty // Urban voices. Accent Studies in the British Isles. – London and New York: Routledge, 1999. – P. 1-24.
7. Labov W. Principles of Linguistic Change, Vol II: Social Factors / W. Labov. – Oxford: Blackwell, 2001. – P. 261-293.
8. Stoddard J. Sheffield dialect in the 1990s: revisiting the concept of NORMs / J. Stoddard, C. Upton, J.D.A. Widdowson, P. Foulkes, G.J. Docherty // Urban voices. Accent Studies in the British Isles. – London and New York: Routledge, 1999. – P. 72-89.
9. Thomas E.R. Sociophonetics. An Introduction / E.R. Thomas. – Palgrave Macmillan, 2011. – 356 p.
10. Tollfree L. South East London English: discrete versus continuous modeling of consonantal reduction / L. Tollfree, P. Foulkes, G.J. Docherty // Urban voices. Accent Studies in the British Isles. – London and New York: Routledge, 1999. – P. 163-184.
11. Trudgill P. The Dialects of England / P. Trudgill. – Oxford: Blackwell Publishers Ltd, 1999. – 154 p.
12. Wells J.C. Accents of English 2. The British Isles / J.C. Wells. – Cambridge University Press, 1992. – 465 p.
13. Wells J.C. English accents and their implications for spelling reform / J.C. Wells, B. Collins, I. M. Mees // Practical phonetics and phonology. A resource book for students. – London and New York: Routledge. Taylor & Francis Group, 2003. – P. 257-264.