

Leeds Studies in English

Article:

Charles L. Houck, 'Methodology of an Urban Speech Survey',
Leeds Studies in English, n.s. 2 (1969), 115-28

Permanent URL:

https://ludos.leeds.ac.uk:443/R/-?func=dbin-jump-full&object_id=134437&silo_library=GEN01



Leeds Studies in English
School of English
University of Leeds
<http://www.leeds.ac.uk/lse>

METHODOLOGY OF AN URBAN SPEECH SURVEY

By CHARLES L. HOUCK

INTRODUCTION

In recent years, linguists have begun to investigate urban linguistic behaviour as a function of socio-economic classes rather than as a function of geography, as a deviation from a particular linguistic norm, or as an activity of minority groups. Methods of investigation that worked hitherto, especially the informant selection process, become inadequate when an entire urban community is to be surveyed.¹ Urban areas are, first of all, dynamic rather than static; and secondly, they have an extremely complex socio-economic class structure that does not usually yield to subjective classification. The method used in surveying urban linguistic behaviour must, therefore, not only take into account these two above characteristics, but must do so in a manner that is objective and that allows for the calculation of sampling errors mathematically through various statistical formulae. The purpose of the present paper is to describe such a method as it was used in a survey of the linguistic behaviour of Leeds as a function of socio-economic classes.

METHOD

The two-stage probability sample. A two-stage probability sample was used to obtain informants for this survey.² The first stage involved the construction of a valid stratum from which to select a random sample of households. The second stage involved the random selection of households from which the informants would ultimately be randomly selected.

Using the city boundaries of Leeds as the outer limits and the national grid co-ordinates as formulated by the Ordnance Survey topographic maps, the city was divided into quarter-kilometer squares. Each square therefore represented a quarter section of a 25 inch to a mile scale map (1:2500), or a complete 50 inch to a mile scale map (1:1250). A land use map of the city of Leeds, created from information provided by the City Engineer's Department was then used. This map provided a complete areal cover of the residential housing in the city. All those squares which contained 50% or more of their area in

residential use were marked. The total number of squares in residential use was 236. Therefore, it was decided that for the survey to be manageable only half of these 236 residential squares would be selected. To insure, however, that the areal cover of the sample was such that it included a representative selection of housing densities, types of housing, and consequently, a cross-section of the social structure of the city, 5 concentric rings a mile wide were marked out on a quarter-kilometer square grid, beginning from the city centre and ending at the city limits; then every alternate residential square in each mile-out concentric ring was systematically selected, giving precisely the correct proportional number of squares per concentric ring (see Map, p. 117). The count was, 4, 26, 35, and 11 for rings 1 to 5 respectively, totalling 118. Three more squares were dropped when later on-the-scene investigation showed that these 3 squares had undergone extensive slum clearance since the Ordnance Survey maps were produced (i.e. during the last five years) and were not now residential.

The process used to select randomly the households from each square involved again the use of the 25 inch (1:2500) Ordnance Survey maps. Beginning with the 25 inch map (1:2500), each chosen square was identified by co-ordinates and an overlay was made of it which displayed the systematic count of houses and the geographical location of the selected household contained in the square. Sometimes, however, the 25 inch map (1:2500) was incomplete in terms of addresses or just out of date for certain areas of Leeds. One then had to use the 50 inch (1:1250) map to obtain this information. In areas where both map sizes were judged to be not up to date by personal inspection of the area or by information obtained from the City Engineer, up-to-date field-map overlays were made and the houses were counted and addresses listed.³ Although Miss Leigh made a proportional selection of households, the time factor in this study allowed only one household from each quarter-kilometer square to be randomly selected from the systematically numbered houses and its address noted.⁴ If the selected house was discovered to be unoccupied, demolished, or non-residential, the quarter-kilometer square was resampled. The resampling was done on the assumption that it met the original criteria that every resident had an equal chance of being included in the sample and that his selection was independent of informant selection in other quarter-kilometer squares.⁵

Informant qualifications. In order to qualify as an informant, the members of the household had to meet the following conditions: (1) they had to be a non-transit member of the household; (2) they

THE UNIVERSITY OF LEEDS

Leeds 2
Telephone 31751

SCHOOL OF ENGLISH

Dear Householder,

I am writing to ask for your help for a University investigation into the make-up of the speech of the City of Leeds.

Professor Charles Houck an American Fulbright Scholar has prepared, on a strictly scientific basis, a list of households to be visited with a short set of questions. These questions do not ask for information, but are designed to collect the pronunciation of a list of selected words. These words are to be sought in over a hundred households throughout the city and your home has come out of the selection process in rather the same manner that ERNIE, the selcting machine, chooses Premium Bond winners. In the same way Professor Houck has to choose at random one person in your household when he calls. Your name is not important to the inquiry, but it would help if you would tell Professor Houck, as well as the words, a little about your own background, which will help him index the material. The whole inquiry is designed to take a little over half an hour of your time. Professor Houck needs to record your answers on a specially designed tape recorder that only takes the one word of your reply, and not the questions. He will be quite prepared to play back the answers, a process which takes only about five minutes.

I do not ask you to stay at home specially to wait for Professor Houck, he will try to call when someone is at home, and will then be most ready if necessary to arrange a later visit timed to suit your own arrangements.

I should stress that this is not an attempt to collect "Leeds speech", but is an inquiry into what various factors have an effect upon local speech at the present time, it will include people who come from all kinds of backgrounds and communities.

Yours faithfully,

Stanley Ellis

Lecturer in English Language

had to be 15 years of age or older (the official school-leaving age for England); (3) they had to be a functional speaker of English; and (4) they had to be mentally and physically capable of giving the information needed. The members of the household who met all of these conditions were then systematically numbered and one was randomly selected.⁶

Letters of introduction. Three different letters were used to introduce me and to explain the purpose of the survey (see p. 118).⁷ The different letters were made necessary by (1) the need to call again at the household which had been visited on several previous occasions without finding anyone at home, and which had to be put aside for a lengthy period of time. In this case the letter simply told the householder that he had been called on, but was not found in and would be called on again shortly; and (2) the need to call again on a household which had refused admittance because the householder had not received the first introductory letter, and consequently was suspicious or dubious about the authenticity of the survey. The envelopes were addressed to "The Head of the House," and were franked and posted by the University of Leeds, signifying official university business.

The questionnaire. The questionnaire (see pp. 120-3) was designed to elicit vowel and consonant monosyllabic minimal word-pairs that would provide a phonological inventory which could ultimately be analysed on the Kay Sonograph and a computer. Eleven vowel monophthongs and 8 diphthongs were substituted medially before both voiceless and voiced alveolar stops.⁸ Twenty-six consonants were substituted primarily in initial position. The exceptions were the voiceless and voiced interdental fricatives [θ, ð], the velar nasal [ŋ], the voiced alveopalatal fricative [ʒ], and the alveolar lateral [l], which were substituted only or also in final, intervocalic, or postvocalic final position respectively.

As can be easily seen in the minimal-pair chart (see p. 124), all the words are not true minimal pairs or monosyllabic. Although Roman Jakobson⁹ and Gimson,¹⁰ as well as others, provide admirable commutation lists which demonstrate concisely the phenomenon of minimal distinctions, they are usually made up of words which do not have wide currency. In this study, as is the case in other studies of this type, words had to be picked that not only would most likely be obtained from an informant regardless of his socio-economic background, but would also meet the criteria of acoustical minimalness and monosyllabism.¹¹

Questionnaire for Eliciting Minimal-Pairs for Phonological Analysis.

1. Some plastic flowers look almost [real].
2. Household plants grow best indoors on a large and sunny window[sill].
3. The rich and the [poor].
4. In the house you'd grow flowers like geraniums in a flower [pot].
5. A short name (show card with Herbert on it) for the name on the card is [Bert].
6. At the zoo you might feed fish to the [seals]. And one (hold up one finger) is called a [seal].
7. If someone disagreed with your order, you might say that there will be no ifs or[buts]. And one is called a [but].
8. After the referee made an unpopular football decision against the home team, the crowd[booed]. (make gesture of booing).
9. You'd wash your good woollens not in a washing machine, but in the [sink].
10. (an old saying) A man is earnest and full of[zeal].
11. A town like Bradford making woollen cloth would have lots of [mills]. And one is called a [mill].
12. An enclosed delivery vehicle usually without any windows is called a [van].
13. A. A carpenter's tool for drilling holes in wood is called a brace and[bit].
B. Today, a dog bites; Yesterday, he [bit].
14. If you were cold and shivery, you might say, I got a[chill].
15. If something broke on anything mechanical, you'd to to the shop for a new [part].

16. A fisherman goes out in a [boat].
17. To keep shoes on, the laces are [tied].
18. A short name for Lilian is [Lil'].
19. If you were hunting a dangerous wounded animal, you might say to your guide who told you to stay back, "No, I want to be in at the [kill]."
20. There's a saying they're as like as two peas in a [pod]
21. Sometimes a fisherman uses live worms as [bait].
22. This whole thing sitting on top of my neck is called the [head].
23. If something is not good, it is [bad].
24. If you went fishing at Blackpool, you'd fish off a long [pier].
25. When a man purposely doesn't shave, you'd say he is growing a [beard].
26. The envelope (give (E) to informant) is addressed to Mr. [Hoyte].
27. The opposite of no is [yes].
28. Women when they go out may wear a string of [beads]. One is called a [bead]. [the inexpensive kind]
29. Not to empty, but to [fill].
30. An auctioneer holds up a valuable painting and says, What am I [bid].
31. In order to get the right amount for each ingredient when you are baking, you'd use a [measure]. [two syllable word].
32. If you were very warm, you might cool yourself (gesture of fanning) with a [fan].
33. Jack and [Jill].
34. If someone does wrong in a religious sense, you'd say he has committed a [sin].
35. After tea or supper you'd tell the small children it's time for [bed].
36. A shopkeeper would get change from his [till].
37. This part of the face (gesture) is called the [chin].

38. This front part of the leg (gesture) is called the [shin]. [It hurts when I kick you on the (shin)].
39. A right and a left shoe make a [pair].
40. If a ship is tied up to a dock, you'd say it is [moored].
41. The windows of a jail are usually [barred].
42. [Advert of TV] Budgies bounce with health with [Trill].
[try it with Trill box].
43. If someone makes a nicely said point, you'd say to him that it was nicely [put].
44. If you took a newly purchased object home, you'd probably say to your (wife husband, parents etc.) Look what I've just [bought].
45. When a policeman has a special area to patrol, you'd talk about walking his [beat].
46. This envelope is addressed to Mr. [Boyd]. [as in 26].
47. A fish breathes with its [gills]. And one is called a [gill].
48. For making a hole in a tooth, a dentist would use a [drill].
49. A man playing the piano in a pub would probably get the men to [sing].
50. At a memorial service, you'd stand with your head [bowed].
51. Football score: Leeds United 5, Manchester United [nil]. [If I were a sports announcer on TV or on the radio (wireless)]
52. I'd rather have medicine because I can't swallow a [pill].
53. A match between two fighters is called a [bout]. [A ten round (bout)].
54. At the bookmakers, you can place a [bet].
55. The fourth letter of the alphabet is [D].
56. Before a flower has a blossom, it will have a [bud].
57. An angry animal sometimes has his fan [bared]. [Baird TV (show card with name)]. [If I took off my shirt and vest, my chest would be (bared)].

58. If you saw someone with legs bent like this (gesture ()), you'd say his legs are [bowed].
59. Given the correct amount for a due bill, a shopkeeper would mark your account [paid].
60. If you have a visitor, you'd offer him a cup of [tea].
61. If you had used a lot of electricity this past quarter, you'd get from the Electricity Board, in the post, a large [bill].
62. You'd call a dish made with suet steak and kidney [pud']: [Not with crust, but . . .]
63. If you were baking, you'd roll out your pastry on a [board].
64. A small flying black creature with leathery wings and found sometimes in church belfries is called a [bat].
65. If you were gasping for air you'd say, I can hardly [breathe].
66. Someone about to die would make his [will].
67. If Leeds were winning, you might say Leeds are [ahead].
[Remember that word that sits on top of my neck? Well, as used in this sentence]. [if calling a ship, you call ship (ahoy)].
68. If you had been running hard, you'd probably be short of [breath].
69. I'm wearing shoes; if they came up to my ankles (or gesture,) you'd call them [boots]. And one is called a boot .
70. A little flying creature with feathers is called a [bird].
71. Postmen distrust dogs on their rounds because the dogs sometimes [bite]

Minimal-Pair Chart

Vowel Minimal Pairs

[i]	bead beat			[u]	bood boot
[ɪ]	bid bit	[ɜ]	bird, Bert	[ʊ]	pud' put
[ɛ]	bed bet	[ʌ]	bud but	[ɔ]	board bought
[æ]	bad bat	[ɑ]	barred part	[p]	pod, pot
[e]	paid, bait	[ə]	beard	[ə]	bowed, boat
[a]	tied tight	[ɛə]	baired bared	[a]	bowed, bout
[ɔ]	Boyd Hoyte	[ə]	moored		

Consonant Minimal Pairs

[p]	pill			[t]	till			[k]	kill
					tea				
[b]	bill			[d]	dee			[g]	gill
					"D"				
				[tr]	trill			[tʃ]	chill
									chin
				[dr]	drill			[dʒ]	Jill
[f]	fill	[θ]	breath	[s]	sill			[ʃ]	shin
	fan				seal			[h]	head
					sin				
[v]	van	[ð]	breathe	[z]	zeal			[ʒ]	measure
								[h]	ahead
[m]	mill			[n]	nil			[ŋ]	sink
									sing
[w]	will			[l]	Lil'				
				[r]	real				

Sentence frames were constructed so that the response-word would always be obtained in sentence-final position, under stress, and with a falling intonation contour. The response-word was also placed in a semantic context which it was hoped would maximize the probability of its being obtained; for example, sentence frame 3: the rich and the [poor].

To minimize two types of systematic pronunciation-bias the sentence frames with their response-words were randomly distributed. This random distribution minimized, first of all, the chance of any systematic grouping of words, consciously or unconsciously, which because of their identical or similar phonological make-up would bias the pronunciation of the following phonologically similar word. Secondly, the random distribution, along with the different semantic environments of each sentence frame, in effect gave the questionnaire the form of a cross-word puzzle. It was believed that the cross-word puzzle format would force the informant to focus on giving the appropriate response-word and would minimize the bias resulting from the informant focusing on some particular "correct" pronunciation. In addition, emphasis was placed on giving the appropriate word, not on pronunciation, when explaining the interview procedure to the informant.

The questionnaire was tested with four informants before it was used in the survey, and changes were made. Changes in the questionnaire were also made during the survey if a particular sentence frame did not produce the response effectively, and a similar frame was found to be more successful; for example, sentence frame 24:

1. Most seaside resorts like Blackpool (or Scarborough) have a long (gesture) [pier]. (juts [or sticks] out into the sea).
2. If you went fishing at Blackpool, you'd have to walk out on a long [pier].
3. If you went fishing at Blackpool, you'd fish off a long [pier].

Extended speech. Although it was believed that the cross-word puzzle format of the minimal pair questionnaire would produce isolated approximations to casual speech, it was also believed that there was a need to try Labov's method of getting extended casual speech within the context of the interview.¹² Labov used two topics. One was "a discussion of childhood rhymes and customs," such as:

My mother, your mother lives across the way,
Two-fourteen East Broadway,
Every night they have a fight
And this is what they say . . . (Labov, p. 168).

Informant Data Sheet

CELL NUMBER: _____. SEX: M F MARITAL STATUS: S M W(er)

1. IN WHICH AGE GROUP ARE YOU? (show chart) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15.
2. IN WHAT TOWN AND COUNTRY WERE YOU BORN? V/T/C _____
CO. _____
3. WHERE DID YOU LIVE BEFORE YOU WERE 13? V/T/C _____ CO. _____
4. WHERE DID YOU LIVE FROM AGE 13 THROUGH 19? V/T/C/ _____
CO. _____
5. AFTER THE AGE OF 19 WHERE IN ENGLAND HAVE YOU LIVED MOST OF YOUR
LIFE? V/T/C _____ CO. _____; V/T/C _____ CO. _____
6. AFTER THE AGE OF 19 HAVE YOU LIVED ANYWHERE ELSE MORE THAN ONE
YEAR?
V/T/C _____ CO. _____ YEARS? _____

7. HAVE YOU EVER LIVED IN THE COUNTRY OR ON A FARM? N YEARS?
-5 -10 -20 +20.
8. WAS YOUR MOTHER BORN AROUND HERE? Y N V/T/C _____ CO. _____
9. WAS YOUR FATHER BORN AROUND HERE? Y N V/T/C _____ CO. _____
10. HOW OLD WERE YOU WHEN YOU LEFT SCHOOL? _____
11. WHAT YEAR DID YOU LEAVE SCHOOL? _____ (1958)
12. WHAT KIND OF SCHOOL (do, did) YOU GO TO? _____
13. If 15/15+ & still in school WILL YOU GET A CSE? Y N. ARE YOU TAKING
"O" LEVEL? Y N. ARE YOU TAKING DAY RELEASE? NIGHT CLASSES ?
Y N.
14. If 16/18 when leaving school DID YOU GET A (GCE, HNC)? Y N.
15. WHAT IS YOUR breadwinner's (JOB, OCCUPATION)? _____
16. (ARE, WERE) YOU PAID WEEKLY OR MONTHLY: W M.
17. (IS, WAS) YOUR WAGE CALCULATED BY PIECE-WORK OR HOURLY RATE?
P-W HR.
18. IN WHICH INCOME GROUP ARE YOU? (show chart) 1 2 3 4 5 6.

INCIDENTAL INFORMATION OR COMMENTS:

The second was "the question, 'Have you ever been in a situation where you thought you were in serious danger of being killed, when you thought, "this is it"?' If the answer [was] 'yes' [Labov asked], 'What happened?' " (p. 168).

As Labov pointed out, "There is a psychological pressure to prove that this was a real, not an imagined danger, and the speaker often becomes involved in his narrative to the extent that his attention is entirely focused on this re-enactment of the past" (p. 168).

In the present study another question was used, because during the testing it was found that discussion of childhood rhymes and customs was unfruitful. The question substituted was, "Have you ever been in a situation where something funny or humorous happened to you or you saw it happen to someone else?" This question was particularly effective among the women informants, who seemed to have lived a rather uneventful life in terms of dangerous situations.

Informant data sheet. The informant data sheet (p. 126) is a composite of stated and inferred questions from several sociological informant data questionnaires. The starting-point was the "index" used in Labov's study to determine "the relative socio-economic status of the individuals who were interviewed . . . , which combined three indicators: occupation [of the breadwinner], education [of the informant], and the family income figure" (pp. 165-66). An informant data sheet based on Kinsey was also used to formulate residency questions more precisely.¹³ To relate the data sheet to England, however, I used the *Classification of Occupations* 1966, which defines socio-economic groups by considering people's employment status and occupation and which theoretically groups people "whose social, cultural and recreational standards and behaviour are similar."¹⁴ This document helped to formulate the questions relating to education, occupation, and income.

Tape-recorder. All informants' responses were recorded on the Uher 4000L Report portable tape-recorder with a high fidelity microphone at 3.75 ips. with a frequency range of 40 to 16,000 cps. EMI and Scotch standard-play recording tape were used as a result of advice from the BBC.

RESULTS

Since the purpose of the paper is methodological, only some very brief and preliminary results are reported here. Results of a more definitive nature will be published in a later paper.

As shown by the Map (p. 117), 87 out of 115, or 75%, randomly selected informants were interviewed. Preliminary results, based on 20 informants who were randomly selected from the 87, showed that these 20 informants represented with correct percentages the 5 social classes that are based on occupation classification, i.e. professional, intermediate, skilled, partly skilled, and unskilled occupations, as well as many of the 17 socio-economic groups (4 are agricultural and so do not appear at all in the study), and that the vocalic segmental phoneme they used in "bud" seemed to indicate that the linguistic behaviour in Leeds is a function of socio-economic class.

CONCLUSION

It is believed that the method presented in this paper is capable of surveying linguistically the whole population structure of any English urban centre, regardless of size. It is recognized that the method is not definitive, but it is hoped that it will serve as a reliable reference point for future linguistic studies in English urban areas.

NOTES

- ¹ John T. Wright, "Urban Dialects: A Consideration of Method," *Zeitschrift für Mundartforschung*, XXXIII (1966), 232-47.
- ² The sampling technique used in this survey was developed by Miss Christine Leigh, a lecturer in statistical geography in the Department of Geography, The University of Leeds, for her doctoral dissertation. Through its use, the time that would have been spent on developing an independent random sampling technique, an estimated ten months, could be used to interview informants.
- ³ This time-consuming activity was fortunately required in only six squares in the present study.
- ⁴ A pilot study by Miss Leigh in 1963-64 tested the randomness of the selected households. The results showed that her two-stage probability sampling method was highly reliable.
- ⁵ Celeste McCollough and Loche Van Atta, *Statistical Concepts* (New York, 1963), pp. 13-14.
- ⁶ Members of the household eligible to be interviewed were again advised (see Letter, p. 118) that the informant must be chosen randomly; that it could not be a case of "let the Mister do it." It was explained that it would be better not to interview anyone in the household than to violate the principles of random sampling. Fortunately, there was only one instance where an informant thus chosen refused to be interviewed.
- ⁷ The three letters were composed and signed by Mr Stanley Ellis, School of English, The University of Leeds.
- ⁸ A. C. Gimson, *An Introduction to the Pronunciation of English* (London, 1962), pp. 86-87.
- ⁹ Roman Jakobson *et al.*, *Preliminaries to Speech Analysis* (Cambridge, Mass., 1963), pp. 1-2.
- ¹⁰ *Op. cit.*, pp. 86-87.
- ¹¹ Since I was not a speaker of British English, considerable help was needed here and later with the sentence frames (pp. 120-3), and it was fortunately provided by Stanley Ellis, who is a native of Bradford, a city just nine miles west of Leeds, and has long been a resident of Leeds. The list of commutations was also presented semi-formally in a paper to a seminar of linguists at the University of Leeds for criticisms, changes, and suggestions.
- ¹² Labov tested for casual speech by looking for "one of five channel cues: changes in tempo, pitch, or volume, laughter, or changes in breathing. If at least one of these occurred, it would be judged casual speech" ("Phonological Correlates of Social Stratification," in *The Ethnography of Communication* ed. J. J. Gumperz and D. Hymes, *American Anthropologist Special Publication*, LXVI (1964), p. 168).
- ¹³ John T. Wright, "Taxonomy for Stratified Sampling of Rural-Urban Communities," a mimeographed sheet (School of Oriental and African Studies, 1965).
- ¹⁴ (London: Her Majesty's Stationery Office, 1966), p. xi.