

Bilingual Interaction between Norfolk Island Language and  
English

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0.0 Abstract:

The practical techniques suggested by Wurm and Laycock, and the intelligibility rating scale which they devised, are first used to establish that Norfolk is a sub-language, and not a dialect, of English. An attempt is then made to determine the linguistic relationship of English and Norfolk, and general aspects of the conclusions reached are discussed.

1.1 The aim of this paper is to examine and define the relationship of Norfolk to English, and to discuss any implications which this study has for linguistic science generally.

2.1 The masterly early study of Uriel Weinreich, Languages in Contact, outlined most of the theoretical, practical, and methodological problems of bilingualism. He emphasized the need for the co-ordination of all the disciplines interested in these, and the use by linguistic science of the knowledge so gained (pp.4-5).

Weinreich did not deal specially with the phenomenon of two cognate languages in contact, but his methods are applicable to such a study.

2.2 The early work of Reinecke dealt with such languages, but concentrated chiefly on their sociological aspect.<sup>2</sup>

2.3 The work of R.A. Hall, dealt with the linguistic as well as the social aspects of Melanesian Pidgin and Haitian Creole.<sup>3</sup>

2.4 K. Whinnom, Spanish Contact Vernaculars in the Philippine Islands, uses the term "contact vernacular" to mean a form of speech which is the product of the contact of a European and an aboriginal tongue, and deals with three such languages existing in the Philippines.<sup>4</sup>

2.5 In 1960 and 1961 there appeared the two volumes of Creole Language Studies.<sup>5</sup> The relevant work of David De Camp appearing in these will be discussed later.

2.6 For the purposes of this paper, the article of Halliday, "Categories of the Theory of Grammar," (1961) is assumed as a theoretical basis.<sup>6</sup> This theory is now being tested in application to the Norfolk data. The criticism of it by Postal (1964) is outside the scope of this discussion.<sup>7</sup> Halliday has recently published another article, "The Tones of English," where he has in mind Quirk's research on the phonology-grammar relationship.<sup>8</sup>

2.7 Dr. S.A. Wurm and Dr. D.C. Laycock, faced with a similar problem regarding language of New Guinea, proposed a working solution.<sup>9</sup> Starting from a premise that a language has "the social function of carrying information from speaker to hearer" (p.128), they found Swadesh's criterion for distinguishing between language and dialect unsatisfactory. Swadesh had suggested that forms of speech sharing 81% or more basic vocabulary cognates should be regarded as dialects of the same language, whereas forms of speech sharing less than 81% should be regarded as distinct languages.

Wurm and Laycock found, from wide observations of New Guinea languages, that this percentage figure corresponded "to the reality of the borderline between mutual intelligibility and unintelligibility only in rare instances" (p.129). Mutual intelligibility seemed "only little impaired, or not impaired at all, in cases in which the percentage of basic vocabulary cognates shared by two forms of speech was up to 10% less than 81%."

To distinguish between language and dialect, they devised a criterion of mutual intelligibility - "the degree and the extent of the practicability of exchange of information between speakers of differing forms of speech..." (p.134).

This was determined by methods primarily used by Voegelin and Harris - the "ask the informant" and the "test the informant" method.<sup>10</sup>

Wurm and Laycock suggested the following scale for defining the relationship between cognate forms of speech:

|                                               |                                        |
|-----------------------------------------------|----------------------------------------|
| "Complete or almost complete intelligibility" | 90%-100%<br>transfer of<br>information |
| "Fair"                                        | 75-90%                                 |
| "Limited"                                     | 60-75% →                               |
| "Partial"                                     | 40-60%                                 |
| "Rudimentary"                                 | Less than<br>40%                       |

"The boundary of 'language' may from the point of view of mutual intelligibility, be drawn around 50%, with the sphere of 40-60% of information transfer .... constituting the sub-language range which is intermediary between language and dialect" (p.133). What degree of transfer of information characterizes a dialect is not explicitly stated, but it may be inferred that it is the ~~40-60%~~ range.

60-75% ~ 60-

3.1 This criterion has been found useful for deciding the application of the term 'language' or 'dialect' to Norfolk. This is not because this question may be finally decided by such a means: Wurm and Laycock themselves point out that the "figure of 50% is to a great extent arbitrary," and indicate that other linguists have suggested different figures.

The real value of attempting to determine experimentally, on the basis of transfer of information, whether Norfolk is a dialect or sub-language of English, or a separate language altogether, is therefore:

- (a) that it reveals interesting facts about the structure of Norfolk itself.
- (b) that it shows what happens when two cognate forms of speech are used alternatively by one individual.
- (c) that it helps to elucidate the general question "What is a language?".

3.2 The Norfolk material was collected during field work on the Island in 1957 by various methods:

- (a) Systematic elicitation of general, and also special lexical items (e.g. names of fish, birds, and trees and plants).
- (b) Free observation of words and phrases heard in conversation, and subsequently checked with informants.
- (c) Tape-recorded free conversations.
- (d) A very limited amount of written material:
  - (i) Scripts of examination papers set by the N.S.W. State Department of Education (4th-5th December 1908), worked by school children on Norfolk Island and sent to Sydney for examination. These scripts give limited evidence of the influence of Norfolk grammatical structure on written English.
  - (ii) Parts of two spoken dialogues (D-3 and D-5) written down by informants themselves.
  - (iii) An inscription on an ash-tray.
  - (iv) A sentence written down by an informant to illustrate the use of certain words.
- (e) Nine word lists which had appeared in scientific, historical, and linguistic publications between 1903 and 1957 were by non-Island observers. They were recorded, often inaccurately, in ordinary orthography. They were checked with informants to determine their exact form and their present currency, and thus provided a basis for elicitation.

<sup>50</sup> Thus Norfolk is almost exclusively a spoken language, and ~~this~~ is not subject to the influence of a written medium.

3.3 The reasons for this are historical. The Norfolk Islanders have to use Martinet's term, a double linguistic 'allegiance'.<sup>12</sup> At least in this socio-cultural sense, they may immediately be called bilingual. The mutineers of the Bounty originally settled on Pitcairn Island in January, 1790, with their Tahitian wives. By 1856 the population had so increased that it was found necessary to transfer all the inhabitants to Norfolk Island, 930 miles E.N.E. of Sydney, now an Australian territory. Later two small groups returned to Pitcairn Island, and the present Pitcairners are their descendants. Those who have remained on Norfolk Island are much more numerous, and have not lost their language, even since they have been brought into contact with Australian and other immigrants from early in this century.

From the beginning the Islanders, when addressing outsiders, took pride in using standard English, the language of the Bible and the Prayer-Book taught to them by two of the surviving mutineers, Adams and Young. So well did they do this that they surprised American and English visitors to the Island between 1808 and 1814.

Yet at the same time another language was developing for familiar intercourse. Apparently from the efforts of the Tahitians to speak English and of some of the mutineers to speak Tahitian, there developed a second language which represented a fusion of the two. As early as 1821, when the ship Surry visited Pitcairn Island, the ship's surgeon, Dr. Ramsay, wrote down some of this language, and this record showed clearly that the Pitcairn-Norfolk language had already taken on much of its characteristic form.<sup>15</sup> It remained, however, exclusively a spoken tongue, whereas 'Standard English' was used in both speech and writing.

Thus from early times the Islanders were in this social sense bilingual. But bilingualism, as Martinet points out, cannot be defined by linguistic allegiance only. It must be defined by linguistic structural means, and it is to this task that it is now necessary to turn.

3.4 The most important body of material for the study of the phonology grammar, and lexicology of the language is the corpus of tape-recorded dialogues. These consist of informal unscripted conversations by groups of two, three, or five speakers on subjects of their own choosing. Seventeen such dialogues, totalling 31 speakers of both sexes in five age groups were recorded: over 50 years, 6(M2, 4F); 30-50 years, 15(M5, 10F); 15-30 years, 2(M1, F1); 9-14 years, 3(F3); and 6-8 years, 5(M3, 2F).

These make a total of 75 minutes conversation comprising 10,153 running words when written down in I.P.A. script.

3.5 Announcements in Standard English of a Norfolk Island choirmaster prefacing performances of hymns were recorded, but the amount of this material was limited.

3.6 Conversations were recorded with the field worker absent, and the tape-recorder left running, with the full consent of the informants. This procedure was adopted because the informants were unable to communicate in Norfolk with one another or with the research worker when the latter was present, though they were willing to do so: they automatically began to use English.

3.7 The use of such material was not merely enforced by those peculiar circumstances. Weinreich (1953) had favoured it, especially for the study of grammatical structure: "For an analysis that can do justice to the complexity of the linguistic facts, the data must be obtained, first and foremost, from the flowing speech of bilinguals in the natural setting of language contact".(p.44). He had, of course, taken account of other methods (pp.12-13). Quirk has since employed similar material.

4.1 To determine the linguistic relationship of Norfolk to English on the basis of transfer of information, the following procedure was adopted.

- (a) A linguist with no knowledge of Norfolk, but with experience in recording and analysing material similar to it, was asked to hear the dialogues played back, utterance by utterance, and then significant part by significant part of utterance.
- (b) He stated orally his notion of the meaning of what he heard, and recorded his own utterances on tape as he went. The listening sessions were in 50 minute periods at separate times to avoid fatigue.

- (c) This informant's statements were subsequently analysed, and the degree of intelligibility of Norfolk to him was estimated on a basis of transfer of information.
- (d) The causes of wrong identifications of language signals were observed and noted. This was done only where a wrong identification was clearly attributable to a single cause (mistaking of a phonological, or grammatical, or lexical or contextual signal), not where it was due to a combination of causes.
- (e) For each dialogue the average tempo of utterance (in words per minute) was calculated, to balance against the other linguistic evidence.
- (f) The results of these observations were tabulated against information of age, sex, and other relevant details of background.
- (g) The dialogues were then ranked in order of intelligibility.
- (h) Two of them, that with the second highest, and that with the second lowest intelligibility rating, were then compared in respect of -
  - (i) Their percentages of basic English vocabulary cognates; and
  - (ii) The relative complexity of sentence structure, on the highest level of abstraction.

These two dialogues were chosen for comparison because they had the same general topic; because the speakers were not far separated in age (just under 50 in the one case and just over 50 in the other); and because they had similar background (none had lived away for a long period from Norfolk Island).

- (i) Deductions concerning the linguistic relationship of English to Norfolk, and the bearing of this upon mutual intelligibility were then made.

4.2 Estimates of the influence of Norfolk upon English were made on the basis of the spoken and written material mentioned in 3.2 (d)(i) and 3.5.

5.1 The dialogues showed an intelligibility rating ranging from 32.5% (D-1) to 79.7% (D-9).

5.2 Eight dialogues fell in the 60-80% (presumably dialect) range; seven in the 40-60% (sub-language) range, and two in the 0-40% (other language range).

5.3 All those falling in the 60-80% range had a tempo of utterance of fewer than 126 words per minute, except those ranking sixth (D-13) and seventh (D-15) in intelligibility rating.

5.4 However, other complex factors likely to affect intelligibility were observed to operate in three dialogues:

- (a) Contextual factors influenced intelligibility in D-9. This deals with the Island's staple industry (the growing of beans for seed), which is a modern development and has felt the impact of agricultural science. Much of the vocabulary used in D-9 is therefore taken over from Australian English, sometimes (as in the word [plænt]) without phonemic adaptation. English grammatical plurals (e.g. [bɪ:nz]) alternate with the Norfolk uninflected plural [bi:n].

- (b) Background factors may have influenced speakers in D-9 and D-13. Speaker B of D-9 spent most of the Second World War in army service in Australia.
- (c) The topic of D-13 (ranked sixth in intelligibility) concerns the work of Speaker B in the local post-office, and this results in the introduction of many lexical words adopted from English denoting things which did not belong to the early Island environment. It even results in the introduction of English-type structural patterns. The speaker confessed after recording this dialogue that he had found difficulty in speaking Norfolk on this subject, "he did not know why". During the conversation, he occasionally checks himself, and translates the word or expression which he has just used into more characteristic Norfolk.
- (d) In D-12 (ranked fourth in intelligibility) there is a strong bias towards English words and structures at the beginning, but this is due to a different cause: this was the first dialogue of all those recorded, and the speakers were pioneers of the project. After some 'translation' at the beginning, ([bana:nə/ pla:n/wi kɔl et] they warm up and speak Norfolk, with consequent loss of intelligibility to the Australian listener towards the end.
- (e) The tempo of utterance of D-16 (school children, aged 6-8 years, ranked fifth) is excessively slow (82 words per minute); its topic (school activities) is very familiar to the Australian listener; and the utterances are grammatically simple.
- (f) D-15 (ranked seventh) contains several words not of English origin, and has a high tempo of utterance; but its topic (fishing) is identified at the very beginning, and its sentence structure is relatively simple. D-7 (ranked eighth) is on a topic familiar to an Australian listener - social work for a church.

5.5 All the dialogues ranked ninth to seventeenth in intelligibility have a tempo of utterance above 126 words per minute, except D-14 (ranked ninth) with 124, and D-8 (ranked fourteenth), with 105 words per minute. However here too a complex combination of factors affecting intelligibility operates. These are best revealed by comparing one of these dialogues (D-2), ranked sixteenth (second lowest) with D-11 (ranked second highest).

5.6 The striking fact emerges that both these dialogues, so different in intelligibility rating (34.05% against 79.02%), have a very high percentage of basic vocabulary cognates with English. D-2 has 97.4%, and D-11 has 98.9%. The remaining 2.6% (D-2) and 1.1% (D-11) represent both lexical words (e.g. [ma:daʔ, a dish made from bananas) and grammatical, or 'function' words (e.g. [hətje], here is), not recognizably of English origin. The difference in intelligibility is hardly due to the slightly higher percentage of vocabulary cognates in D-11, or to contextual factors, as they both have the same general topic. The difference in tempo (155/113) affects the higher level phonological ('prosodic') features, but other factors which are operative must be noted.

5.7 First, however, let it be emphasized that, though the percentage of English cognates in both these dialogues is high, they often do not appear in their exact English form. As Norfolk is almost exclusively a spoken language, there is considerable morphophonemic variation, e.g. [gʷerə], [gʷen], [gʷ:ən], [gwen], [gən]

in [grau]

for (am, are) going

Sometimes there is observed an alternation between a non-English and an English form. Thus Speaker B of D-2 uses sometimes the o. characteristic analogic Norfolk form of the first person singular possessive in [maiz'di:] (l. 189), and sometimes the English form, in [mai'di:] (l. 142).

The uneducated English abbreviation of potato, 'tatie', appears in Norfolk. In the idiolect of Speaker B of D-2, the first syllable is pronounced with the allophone [te:] of /ti/. Very often, the use of this allophone, even in unabbreviated words like /geit/, resulted in failure of the listener-informant to recognize it. Similarly, the use of the allophone [a:] of /au/ resulted in failure to recognize it as the Norfolk form of English /graund/.

5.8 This serves to introduce another important conclusion arising from the data. In Norfolk. failure to recognize the vocabulary cognates often results from a difference in the segmental phonemes from those of English. This partly accounts for the low intelligibility rating, yet high percentage of English vocabulary cognates in D-2. It partly accounts also for a similar disparity in D-11. The following figures indicate comparatively the causes of failures in identification of linguistic signals by the listener-informant.

In D-2, 57% of failures were clearly due to a single cause. Of these:

|        |                            |                                                                                                                              |
|--------|----------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 60.47% | were failures to recognize | segmental phonemes                                                                                                           |
| 2.88%  | " " " "                    | prosodic features                                                                                                            |
| 3.68%  | " " " "                    | the meaning of lexical items                                                                                                 |
| 12.8%  | " " " "                    | the meaning of lexical-phrasal items, in which Norfolk is rich, e.g. [o: d: g: d: fi: ca: ri: t: ], oh! what a good affair!. |
| 1.57%  | " " " "                    | lexical-grammatical items (function words)                                                                                   |
| 18.8%  | " " " "                    | morphological and syntactical signals.                                                                                       |

In all, there were 63.5% failures to recognize phonological signals, 16.28% failures to recognize lexical signals, and 20.37% failures to recognize grammatical signals (including here function words).

Similar figures for D-11 were:

|       |                            |                                       |
|-------|----------------------------|---------------------------------------|
| 44.3% | were failures to recognize | segmental phonemes                    |
| 1.3%  | " " " "                    | prosodic features                     |
| ---   | " " " "                    | the meaning of lexical items          |
| 18.9% | " " " "                    | the meaning of lexical-phrasal items  |
| 30.4% | " " " "                    | morphological and syntactical signals |
| 5.1%  | " " " "                    | lexical grammatical signals.          |

In all, there were 45.6% failures to recognize phonological signals, 18.9% failures to recognize lexical signals, and 35.5% failures to recognize grammatical signals.

5.9 Difference in the intelligibility rating of the two dialogues appears to be due also to a difference in the complexity of their sentence structure.

In D-2, 29.2% of all sentences had, as the exponent of one or other element in their primary structure, a class of clause unit. In D-11 only 7.9% were similarly complex in structure.

5.10 In the whole corpus of recorded material, not taking account of the dialogues separately, the average intelligibility rating was 57.2%.

5.11 The influence of Norfolk on English is not noticeable in the speech of adults, except occasionally in segmental phonemes (e.g., in the substitution of /s/ for the /z/ of English /pɔ:zɪn/).

In the child of early school age coming from a home where both parents speak Norfolk, the influence of Norfolk upon English structure is seen occasionally in the English of written school exercises, and teachers devise special training methods to counter this influence.

In the school exercises of 1908 (see 3.2.d.i above), the following evidence of a carry-over of Norfolk grammatical structure into the writing of English is seen:

- (a) Use of the Norfolk uninflected past tense, e.g. "The miner kissed his wife and children and say goodbye."
- (b) Use of the Norfolk form in the third singular present indicative, e.g. "I ilke that book best because it tell all about the fire."
- (c) Use of the characteristic Norfolk 'it' for 'them', e.g. "Having reached Tahiti, they set to work to gather some bread fruit plants to take it to the East Indies."
- (d) Adaptation to English of the Norfolk associative paratactic construction, consisting of a number of statements without conjunctions or other connectives in a vivid succession, and unified formally when read by being included in the same larger phonological unit.
- (e) A spelling 'shaff' for 'shaft', indicating the characteristic Norfolk form of the word.

6.1 The significance of the foregoing results is as follows:

- (a) Norfolk, by the criterion of mutual intelligibility based on transfer of information, is shown to be a sub-language of English, though some forms of it enter the dialect range. It is therefore justifiable to call a speaker of Norfolk and English a bilingual.
- (b) Norfolk and English are also distinguishable on socio-cultural grounds. The Norfolk Islanders have a double linguistic allegiance.
- (c) The bilingualism of the Norfolk speaker shows features similar to those noted by De Camp in Jamaica:

Nearly all speakers of English in Jamaica could be arranged in a sort of linguistic continuum, ranging from the speech of the most backward peasant or labourer all the way to that of the well-educated urban professional. Each speaker represents not a single point but a span of this continuum, for he is usually able to adjust his speech upwards or downwards for some distance on it.

The evidence adduced above of the existence of a similar continuum manifested in Norfolk bilingual speakers is supported, by direct observation. The research worker has observed a speaker change from: Norfolk to English, not abruptly, but in the manner of a fade-out from one picture to another in a film.

(d) Bilingual interaction between English and Norfolk is therefore manifested, on the phonological, grammatical, and lexical levels, as an interpenetration of one language by another cognate language. The percentage of English vocabulary cognates in Norfolk is large, but this similarity is obscured by the differences of Norfolk segmental phonemes from those of English, as well as by the different phonemic shape of words and morphemes. Tempo of utterance, which affects higher level phonological features, appears to have a bearing on intelligibility, but this is not easy to determine. . . More research of the kind being carried out by Quirk and Halliday is required to elucidate this.

(e) The degree of interaction between English and Norfolk appears to be related to topic of conversation and context. More attention to the place of meaning in linguistic description, of the kind proposed by<sup>18</sup> Dr. W. O. Broescher,<sup>17</sup> and advocated by Dr. F. W. Harwood, will help to elucidate the problems of bilingualism.

6.2 The study of the nature and extent of interaction between languages in a bilingual situation reveals both the variety in linguistic communication which is possible, and also the limits of that variety. Bilingualism is thus no narrow specialist study, but one which directs the attention of the linguist to important practical and theoretical aspects of language. <sup>1920</sup>

## NOTES

- 1 Uriel Weinreich, Languages in Contact (New York: Linguistic Circle of New York, 1953.)
- 2 John E. Reinecke, "Marginal Languages: A Sociological Survey of the Creole Languages and Trade Jargons," Doctoral Dissertation, Yale University, 1937, 2 Vols;  
"Trade Jargons and Creole Dialects as Marginal Languages," Social Forces, XVII, 1 (October, 1938), 107-118.
- 3 e.g., R.A. Hall, Jr., Melanesian Pidgin English: Grammar, Texts and Vocabulary (Baltimore: Linguistic Society of America, 1943);  
"Haitian Creole: Grammar, Texts and Vocabulary," The American Anthropologist LV, 2, Part 2, Memoir 14, 1953.
- 4 K. Whinnom, Spanish Contact Vernaculars in the Philippine (Hong Kong, London: Hong Kong Uni. Press and Oxford Uni. Press, 1956)
- 5 R.B. Le Page and D. De Camp, Jamaican Creole: Creole Language Studies, Number 1, ed R.B. Le Page (London: Macmillan, 1960); Proceedings of the Conference on Creole Language Studies, 1959: Creole Language Studies, Number II ed. R.B. Le Page (London: Macmillan, 1961)
- 6 M.A.K. Halliday, "Categories of the Theory of Grammar," Word, 17 (1961), 241-292.
- 7 Paul Postal, "Constituent Structure: A Study of Contemporary Models of Syntactic Description," IJAL, Part III, Vol. 30, I (January 1964), 97-114.
- 8 M.A.K. Halliday, "The Tones of English," Archivum Linguisticum, XV, 1 (1963), 1-29.
- 9 S.A. Wurm and D.C. Laycock, "The Question of Language and Dialect in New Guinea," Oceania, XXXII, 2 (December 1961), 128-143.
- 10 F.C. Voegelin and Z.S. Harris, "Methods of Determining Intelligibility among Dialects of Natural Languages," Proc. Am. Phil. Soc., CV, 3 (June, 1951), 322-329.
- 11 New South Wales State Department of Education Archives, 59572, Norfolk Island 1908-9, Box 592, Letter 5 (5.12.1908)
- 12 A. Martinet, in Preface to Uriel Weinreich, Languages in Contact, 1953, p. viii.
- 13 Scrap Book of the log of the ship Surry, Captain Thomas Raine, written by the ship's Doctor, Dr. Ramsay, giving an account of the visit to Pitcairn Island in April, 1821: from the original in the Mitchell Library, Sydney.
- 14 See the comment on a similar situation in Haiti, by John E. Reinecke, "Trade Jargons and Creole Dialects as Marginal Languages," p. 116.

15. R. Quirk et al. "Studies in the Correspondence of Prosodic to Grammatical Features in English," unpublished mime. script, Ninth International Congress of Linguists, 1962 (to appear in the forthcoming Proceedings.)
16. David De Camp, "Social and Geographical Factors in Jamaican Dialects," in Creole Language Studies, Number II, p.81.
17. W.O. Droescher, "Meaning in Grammatical Structures," Te Reo V(1962), p.11.
18. F.W. Harwood, "Grammatical Systems in English," The Australian Journal of Education, VIII, 3(1963), p.168.
19. Susan Kaldor, "The Study of Bilingualism as an Approach to Language Problems of Asian Student at the University of Western Australia," Anthropological Forum, I, 1, p.119.
20. G. Pittman, Teaching Structural English (Brisbane: Jacaranda Press, 1963), pp.162-3.

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Appendix A    Comparative Table of Intelligibility Rating, Background Data, Length of Dialogues, Tempo of Utterance, Topic and Contextual Features

| <u>Int. Rating</u><br><u>Rank    %</u> | <u>Dial. No.</u> | <u>No. &amp; Sex,</u><br><u>Age Gp.</u>                        | <u>Length</u><br><u>(Running Words)</u> | <u>Av. Tempo</u><br><u>(Words per minute)</u> | <u>Topic and Contextual</u><br><u>Features</u> |
|----------------------------------------|------------------|----------------------------------------------------------------|-----------------------------------------|-----------------------------------------------|------------------------------------------------|
| (1) 79.7                               | 9                | 2(M1, F1);<br>30-50 yrs;<br>Speaker B<br>spent War<br>in Aust. | 766                                     | 126                                           | On bean-seed growing industry                  |
| (2) 79.02                              | 11               | 2(F)<br>30-50 yrs.                                             | 380                                     | 113                                           | Social conversation and visit                  |
| (3) 75.6                               | 17               | 2(M)<br>6 yrs.                                                 | 123                                     | 110                                           | Amusements, pictures                           |
| (4) 74.9                               | 12               | (50+) 2(M1, F1)                                                | 589                                     | 112                                           | Whaling reminiscences                          |
| (5) 68.9                               | 16               | (6-8) 3(M1, F2)                                                | 164                                     | 182                                           | School activities                              |
| (6) 65.6                               | 13               | (30-50) 2(M)                                                   | 773                                     | 176                                           | Post-office work                               |
| (7) 62.5                               | 15               | (6-8) 2(M)                                                     | 690                                     | 153                                           | Fishing                                        |
| (8) 60.2                               | 7                | (30-50) 2(F)                                                   | 490                                     | 122                                           | Church work                                    |
| (9) 59.02                              | 14               | (9-15) 3 (F)                                                   | 385                                     | 124                                           | Girl Guides                                    |
| (10) 58.8                              | 10               | (30-50) 2(M)                                                   | 1058                                    | 147                                           | The Tourist Trade                              |
| (11) 56                                | 5                | (30-50) 5(M1, F1)                                              | 425                                     | 137                                           | Island life                                    |
| (12) 55.5                              | 4                | (30-50) 2(M)                                                   | 865                                     | 175                                           | Island life, amusements                        |
| (13) 54.3                              | 3                | 50+ (1)<br>30-50 (2)                                           | 1146                                    | 134                                           | Farming, etc.                                  |
| (14) 50.4                              | 8                | 50+ (1)<br>30-50 (1)                                           | 497                                     | 105                                           | Island life                                    |
| (15) 43.6                              | 6                | 50+ (1) (M)<br>(30-50) (1) (M)                                 | 187                                     | 144                                           | Fishing and food                               |
| (16) 34.05                             | 2                | 50+ (M1, F1)                                                   | 1018                                    | 155                                           | Island life, Centenary                         |
| (17) 32.5                              | 1                | 50+ (M1, F1)                                                   | 886                                     | 165                                           | Island life.                                   |