## ASPECTS OF THE LINGUISTIC GEOGRAPHY OF SCOTLAND: I

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I propose to contribute a series of three articles under this general title. The first (which follows) will be concerned with the distribution of one or two bird names; the second with East Coast fishing boats and gear; the third with some movements of population—especially fisher population—in the Moray Firth area and their linguistic correlates. Each of the articles will use material collected by the Linguistic Survey of Scotland, and will try to set out concomitant dialectological problems.

Local and particular names of animals, birds, insects and plants have been very considerably used by linguistic geographers as convenient data. It has in fact been suggested, for example by Roedder (1926:285, n. 6) and—especially for plants—by Schuchardt (1922:121) that such names lend themselves particularly to this sort of investigation.

Suggestions like these depend ultimately on one resolution of an internal dialogue within linguistic geography (which need only briefly detain us), on the relative value of words and the pronunciation of words as criteria. For instance (Judges xii, 6) a Gileadite and an Ephraimite were distinguished by a phonetic criterion—the pronunciation of Shibboleth. Berwickshire men and Cumberland men are still to be distinguished (of course among other things) by a particular lexical criterion—"burn" against "beck" for a stream. In the past 40 or 50 years the self-consciousness of linguistics autonomy and emphasised internal relationships where, perhaps, emphasis was easiest, namely, in sound-systems (likened more than once to a game of chess where the movement of a piece alters relationship). But if, on the other hand, vocabulary is stressed we find a corresponding interest, not necessarily in internal and structural schemata, but in the outside world of things. A modern linguistic survey is bound to meet and face such problems.

I

Thus, Yakov Malkiel speaking of Gilliéron's lexicocentric approach in the Atlas Linguistique de la France said (1951:291): "Another consequence of the stress on lexicology has been the growing interest in extralinguistic matters. In classifying a number of sounds into a coherent system, one may freely move within the tightly closed circle of linguistics. A scholar organising into a pattern the names of the lizard needs information not only about sound and form developments, but also about the lizard itself in scientific and popular zoology."

The problem of the outside world, and the problem of the value of a linguistic survey to other disciplines (McIntosh 1949:8 and 1954:175) will necessarily come to the fore in any study in dialectology which is not merely a study of what is random and quaint (cf. McDavid 1961:37). The emphasis which linguistic surveys have usually placed on rural phenomena elicited from rural informants is not at all to be interpreted simply as the desire to record a situation which is rapidly dissolving, but as the necessary conservative and stable background in a study where there is already a sufficiently large number of imponderables. Concentration on a rural situation tends to eliminate what Gumperz (1961:979) has called "supra-local features" or "super-posed styles or dialects".

The prime example, of course, of the use in linguistic geography of a familiar living creature is Gilliéron's study of the distribution of words for the honey-bee throughout Gallo-Roman France (Gilliéron 1918). Here he demonstrated the clash and fight within vocabulary which forms such a large part of his thought. He observed, for example, "abeille" winging its way up from the Midi as a conquering loan-word, but failing to win the north where "mouche à miel" held the field—itself a conqueror over the descendants of Latin "apis", appearing as "ef" and "é" (which Gilliéron called "mutilés phonétiques") and which in turn were only able to hold peripheral territory. In Scotland, the local word for "earwig" was early investigated by the Linguistic Survey as a pilot survey in the lexical field and with such good results, in terms of significant distribution throughout the country, that a full-scale lexical survey was put in hand. This, in two postal questionnaires of 413 items in all, asked for 14 bird names which were themselves included in 66 items in the general category of Plants, Birds, Insects, etc. The sampling density was very high—about one informant for 3,300 of population (Catford 1957:114).

All this is specifically linguistic. But the problems both of the outside world and of relationship to other disciplines become prominent if we examine the possibilities of approaching the subject from the other pole; for ultimately, we may suppose, all disciplines can engage and fortify one another, although each will necessarily observe its own proprieties and priorities. It has always been possible, for example, for ornithologists to extend the range of their subject by an appeal to what to them will generally appear as secondary interests, like bird-lore and bird-names. Hitherto, the conventional method of dealing with such matters has been to discuss etymologies. Harvie-Brown, for instance, begins his book on the capercaillie with a discussion of the meaning of the word. Again, lists of local dialect names are sometimes given, notably in Swainson's Folk-lore and Provincial names of British Birds, which combines both etymology and folk-lore, and in Muirhead's Birds of Berwickshire which does the same. Similarly, A. R. Forbes's Gaelic names of Beasts (Mammalia), Birds, Fishes, etc. is not only a list of Gaelic words in these categories, but also a collection of English dialect names, with notes on folk-lore. (For a note on this type of approach in France and Germany see Iordan and Orr 1937:71.) Another approach is the consideration of the effect of manhis buildings, plantations, reclamations and such like—on natural life. This has been done in works like James Ritchie's Influence of Man on Animal Life in Scotland or E. M. Nicholson's Birds and Men.

There is one fairly early word-list, prepared by an ornithologist and referring in fact to Scotland, which seems to signal an important development. This is J. W. H. Trail's "Bird names in Orkney" which appeared in 1877 in the Scottish Naturalist (Trail 1877:9). After giving his list of Orkney names, Trail remarks, rather casually, that many have been imported by Scottish settlers; hence Scottish names refer to Orkney birds. Now, this is significant. For, however facts of this sort become organised into a specific branch of study, it is immediately apparent that they belong neither to etymology nor to folk-lore, but to something different. They show, really, new types of co-ordination with possibilities for new knowledge where studies in the distribution of the names and of the birds themselves can fortify each other.

In recent years this idea has been exploited in one or two specialised surveys of bird names, designed solely to elicit the local name for a given bird. Thus, in 1953 K. G. Spencer in

The Lapwing in Britain broke somewhat new ground by including in his general account the results of a nation-wide survey, which he undertook personally by means of local correspondents, into the dialect names for the lapwing. The results of this survey are given in his book together with a distribution map (Spencer 1953:108).

Also in 1953, an article by J. C. Maycock, entitled "A Survey of Bird-Names in the Yorkshire Dialects" appeared in the Transactions of the Yorkshire Dialect Society (Part LIII, Vol. IX:29). A short questionnaire was included which asked for the local names of the following birds: chaffinch, crow, cuckoo, sparrow, magpie, tit, starling, owl, robin, thrush, blackbird, lapwing, wagtail, kestrel, yellow-hammer, swift. Maycock asked for sufficient information to give "an intelligible picture of the geographical distribution of the various names used throughout Yorkshire". An interim report on the questionnaire appeared in the following year (Part LIV, Vol. IX:47) and a fuller report, with maps, appeared in Part LVI, Vol. X:28.

The most recent, and the most cogent, example of a coordination with ornithology of the type we have in mind is E. A. Armstrong's Folk-lore of Birds. In two items in particular the study of the Wren Hunt and the folk-lore of the diver-Armstrong found it necessary to use geographical (that is distributional) techniques rather than historical. There is, for instance, nothing in the literature of classical antiquity on the Wren Hunt, but much to be observed to this very day in England, Scotland, Wales, Ireland and the Isle of Man (Armstrong 1958:141). And one of the problems about the diver-the "rain-goose" of Shetland-is that in Shetland it presages bad weather, but in Faroe both bad weather and good according to its note. Furthermore, in Faroe the bird's call when heard overhead is associated with death and the passage of a soul. Now, as a matter of history (or what Sapir called "the drift of culture") it is possible, as Armstrong points out, that the Shetland version is simply in considerable decay. It is limited merely to weather prediction. But to show the belief in its fullest possible form, Armstrong demonstrates the diffusion of such beliefs between America and Eurasia. So that, "if, returning for this excursion, we now ask why the diver is regarded as a weather prophet in Shetland, we are able, in this wide perspective, to suggest an answer. Throughout circum-polar Eurasia the diver is associated with shamanism and the shaman is believed to be able to control the weather....

The shaman has disappeared from Shetland but his associate—we might almost say his familiar—remains. The belief in the diver as a weather-forecaster is a lingering relic of an element in a culture which once extended around the crown of the world. Here we have . . . evidence of an ancient and extensive Eurasian culture. This culture dates, probably, from Neolithic times and contained Palaeolithic elements" (ibid.: 68).

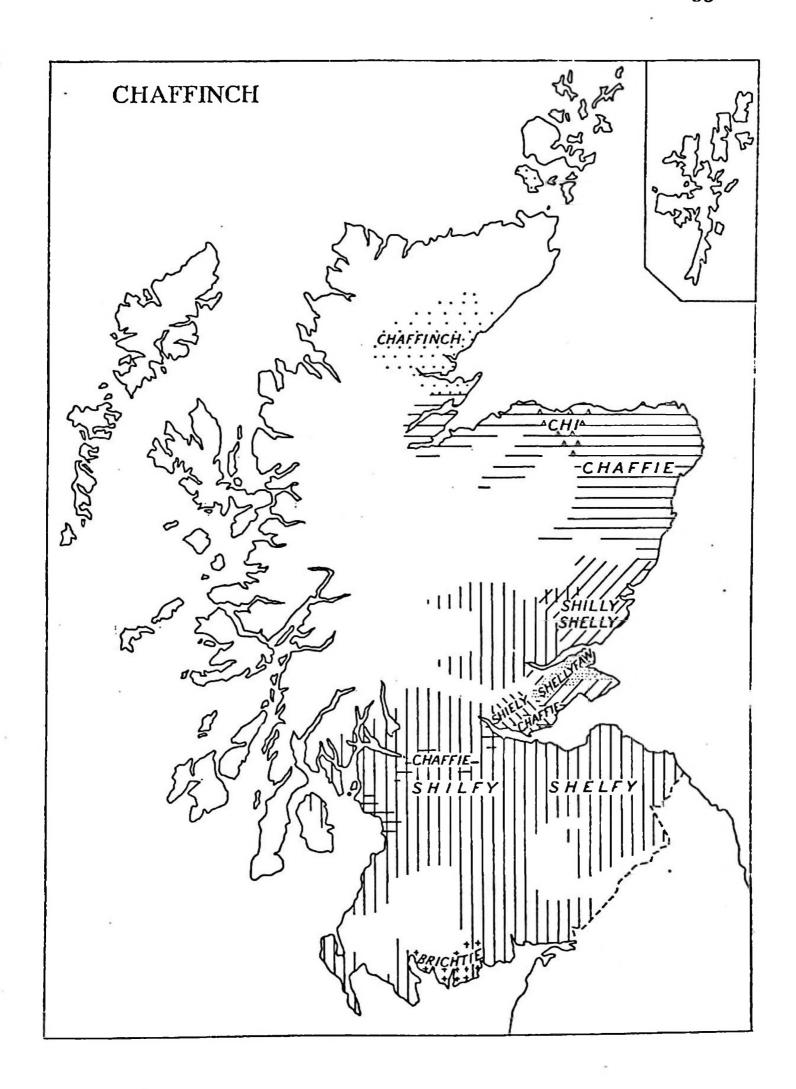
It is, of course, of considerable interest to recollect that within the comparatively recent history of linguistics there has been some criticism of historical method—usually on the grounds of its being too positivist—and a corresponding development of geographical method ("linguistic geography"). Obviously, this is not the place to deal with this in detail, but one very relevant aspect of it can be presented. It is that linguistic geography has claimed to show a stratified picture of the linguistic material. The terminology of geology has, in fact, been used more than once. "Le fait capital" wrote Albert Dauzat (1922:34) "c'est que la géographie linguistique—et par là elle nous apparaît comme une véritable géologie du langage—reconstitue, si l'on peut dire, par leurs affleurements actuels, les couches successives des mots en grande partie enfouies". Of course, the stratification is not exact, with one word succeeding another and effacing it completely and without trace. Thus, "toute la difficulté consiste, pour le nom d'un objet ou d'une idée, à retrouver l'âge respectif et les aires successives des types aujourd'hui juxtaposés, comme le geologie reconstitue les mers jurassiques ou crétacées par l'inspection des falaises et des carrières".

Now, it is possible, in examining the data from the Linguistic Survey of Scotland for "chaffinch", to form some sort of idea of "l'âge respectif et les aires successives" from the diatopic evidence presented to us (see Map). Sapir has a well-known aphorism that a society with no knowledge of theosophy need have no name for it; but the study of "chaffinch" will take us further than this simple parallelism, since we can try to correlate the facts of the physical distribution of the bird itself with the dialect names for it on a rough time scale, as well as adduce some ecological evidence in support. Let us admit that had we only the historical evidence of ornithological observation we might interpret this in the most obvious and direct way, and claim thereby to know all we were likely to know of the actual spread of the bird. On the other hand, had we only the linguistic evidence ("aujourd'hui juxtaposé") we

would seem to be presented with a synoptic situation, uninterpreted as it stands, but which might be interpreted variously. In fact, an ornithological interpretation might not occur to us. (It did not, for example, occur to anyone in the Linguistic Survey for the "chaffinch" distribution map until two well-known ornithologists—Mr. Waterston and Mr. Williamson—pointed it out.) We might be much more likely to think on social or demographic lines, using the linguistic evidence simply as indices. And, obviously, the ornithological evidence, if we desire to make it so, is worth more than its own intrinsic weight. It, too, can be indexial. The possibility is, therefore, that we can extrapolate, and fill out remote corners in both approaches with material from the other.

The map is a stylised version of a detailed map compiled from the evidence of approximately 1,000 informants. In general, then, it appears that the word "shilfy" or "shelfy" is used in a broad belt across Scotland and this, in its northward extension, runs well into Perthshire and Angus. Southwards it is almost co-extensive with the English borderline. There is, however, a pocket in Galloway where the word "brichteye" is used. There are certain departures from the "shilfy/shelfy" type. Fife, on the whole, seems to use "shiely" and Angus and Kincardine "shilly" or "shelly". It seems fairly obvious, however, that all these words are in some degree cognate. But, over the whole of Aberdeenshire, Banffshire, Morayshire, Nairnshire and into Cromarty as far perhaps, as the Dornoch Firth and with outposts into Sutherlandshire, the word is "chaffie", which we might accept tentatively as a reduced form of the English "chaffinch". The outposts are significant. In Sutherland, out of a total of 18 informants, 3 gave "chaffie", 11 gave "chaffinch", 1 gave "finchie" and the remainder made no entry. In Orkney, out of 22 informants, only 1 gave "chaffie", 5 gave "chaffinch" and the remainder no entry. In Shetland out of 33 informants, 31 made no entry. Finally, we must notice in particular the small pocket in an area surrounding the lower waters of the Spey, which gives "chye".

The stratification from S.W. to N.E. seems to be shiely/shilfy—chaffie—chaffinch—no entry. The inference is that in areas where the chaffinch might be supposed to have been long established it bears a dialect name of the shiely/shilfy type; in areas where it seems to have only recently spread it bears the name chaffinch; and in intermediate areas of fairly old, but not very old, establishment it bears the reduced form "chaffie".



In areas where there is no return, it is obviously legitimate to suppose that the bird is not to be found, except occasionally.

We must try to see if all this can be reinforced by a study of what is known, historically, of the physical distribution of the bird itself. Baxter and Rintoul (1953 I:72) have inferred an increase in its range between the Old and New Statistical Accounts (i.e. between 1793 and 1845) on what does not seem to be absolutely indubitable evidence. They do not give exact sources (parishes) but simply state that in the Old Account it was recorded at Dunbarton, Stirling, Fife and Aberdeen, and "by the time of the New Statistical Account it was much commoner and is mentioned in many places" (loc. cit. 73). Actually—to deal only with Aberdeenshire—it was specifically mentioned for two parishes only in the Old Account, namely, Birse and Lonmay; but in the New Account for Fyvie, Peterhead, Strathdon, Birse, Drumoak, Methlick, Lumphanan and Leochel and Cushnie. It is well known, of course, that categories in the Statistical Accounts are not absolute. It is not necessary, that is to say, to notice the presence or absence of a given bird. In the Old Account about half a dozen parishes mention gamebirds only, and a further half-dozen have vague expressions like "a great variety of singing birds" or "almost every kind of birds commonly found in the north of Scotland". The New Account is fuller and more specific in its categories of natural history, and several are very exhaustive. Even so, the New Account is also both selective—game-birds, birds of passage and vague—"little that could be peculiarly interesting for the naturalist", "about 30 species constantly resident", etc.

Much earlier—in 1684—Robert Sibbald mentioned, but without giving an exact location, Fringilla, nostratibus Snowfleck and Shoulfall (1684: II: iii:18). Sibbald, with a family background from Fife, but settled in Edinburgh, was obviously reporting from the "shilfy" (Shoulfall) area. It is worth noting that he generally seems to take pains to give a Scottish version ("nostratibus") of a widely distributed and more generally designated species. (Thus, for Serinus Gesneri he adds: An qui nostratibus Thrissel-cock dicitur? This, incidentally, is Jamieson's citation s.v. Thrissil-cock.)

The later evidence of individual ornithologists is more positive. Charles St. John, referring presumably to observations in the 1840's or 1850's reported it as common in Morayshire (1843:117). By 1887 Harvie-Brown and Buckley could report for Sutherland, Caithness and W. Cromarty that it was

"resident and abundant, breeding throughout the eastern district wherever there is sufficient wood . . . the species has spread rapidly and increased in the west of the county. Formerly, we only knew of one pair at Inchnadamph, which bred there for the first time about 1877. Now they are common, but a slight check was put on their increase by the severe winters. Also observed at Altnaharrow and Tongue in 1881" (1887:29; cf. Harvie-Brown and McPherson 1904:91). In 1883 H. M. Drummond Hay (1883:361) gave it as resident and common in Aberdeenshire, Forfarshire, Perthshire and Fife.

The linguistic evidence and the positive ornithological evidence seem to reinforce each other, and even to add some weight to a more conclusive interpretation of the Statistical Accounts. There can be added some concomitant evidence from climatology which has recently been adduced by W. B. Yapp (1962:219). In fact, what Harvie-Brown and Buckley had to say on the check due to severe winters is significant in this connection. Just as we are here trying to exploit the mobility of bird-life for the purposes of linguistic geography, so Yapp exploited it to suggest (for no other evidence seems to be available) a steady rise in temperature in the north of Scotland within the last 80 years or so. He observed that "birds are more mobile and so can be more sensitive indicators of climatic change" than, for example, the evidence of pollen which might take centuries to show any definitive evidence. There are temperature records from the English midlands which show no detectable rise until 1925; and there are records for Iceland and Finland which show a rise beginning in 1880. But, even though "no figures are available for the north of Scotland . . . the spread of birds there suggests that the rise began at about the same time as it did in Iceland" (Yapp: loc. cit.).

We can add to all this the weight of ecological evidence. Professor James Ritchie in his Influence of Man on Animal Life in Scotland has suggested that the increase in seed-eating birds like the chaffinch, yellowhammer, etc. took place as the result of the spread of cultivation (1920:389). This needs to be elaborated somewhat. We ought, first, to think of the chaffinch as a woodland bird—at least for breeding. Lack (1954:147) has noted the correlation between the quality of food supplies and proliferation as, for example, "in Holland . . . more chaffinches and great tits breed in mixed woods of broad-leaved and coniferous trees than in pure pine-woods which are poorer in quality". But after breeding and by early autumn the chaffinch

leaves the woods in a partial migration to fields, hedges, stack-yards, gardens and orchards (Yapp 1962:5). And, in posing the question of its migratory habits about a millenium ago when oak forests were abundant, and its subsequent adaptation to a somewhat different habitat, Yapp has calculated that chaffinches may "have lost a migratory habit that they once possessed and have become resident only within the time of dense settlement of these islands by man, a period of not much more than a thousand years" (ibid.: 242).

This period of one thousand years in Scotland is significant for our purpose, for in it the chief continuous event of lowland woodland history took place—the steady denudation of broadleaved trees (Steven 1950:110). The general pattern of forest legislation reveals a social and economic antagonism between the demand for agricultural land and the counter-demand for wood as a commercial fuel in the smelting of iron, the evaporating of salt, etc. (Murray 1935:7). Even if by the time of some early travellers in Scotland-Aeneas Sylvius, Fynes Moryson, for example—we have to assume that lowland Scotland had as little woodland as they said it had, the chaffinch had probably already found conditions exactly right for its proliferation. Fynes Moryson found Fife "a pleasant little Territory of open fields without enclosures, fruitfull in Corne". There were "no woodes at all", yet if the chaffinch had lost, or was losing its former habits, it doubtless was adapting itself to the "little Groves" which surrounded gentlemen's dwellings (1617:86). About a hundred years later Thomas Kirke observed similar conditions—which he remarked more than once—especially for Berwickshire, East Lothian and Fife. "There were several pretty houses by the way" he wrote, "and above every house a grove of trees (though not one tree elsewhere) which set them off mightily" (Kirke 1677:412, cf. 419). Later still, the Old Statistical Account has many references to the growing practice of planting hedges, as part of a general policy of improvement. Thus, at Kemney (Aberdeenshire), Mr. Burnett improved certain parcels of ground "which he left in a high state of cultivation and paying well for the expense bestowed upon them, [and which] he planted with trees of different kinds, 130 acres, besides hedgerows in the English mode, round every field in his farm, on each side of the avenues leading to his house and in the little gardens of his tenants" (1793: XII:202). Brigadier Mackintosh of Borlum (Mackintosh 1727) suggested that quickset should be imported from England and Holland until Scotland could provide her own nurseries (quoted Nairne 1890:183). Nevertheless, Dr. Johnson in 1773 passed "for a few yards only" between two hedges in his way from Kirkcaldy to Coupar (Nairne 1890:184).

In the light of such observations it is perhaps possible to view the pocket "chye" centred on Fochabers, and to suggest that this may reflect a much earlier or at least a somewhat special proliferation based on the oak-woods of the lower Spey. Kirke remarks that, for the lower Findhorn, at Forres, he saw "A wood of small oaks, the first that I observed in Scotland" (1677:431). But the special fertility of the area is well known, and would certainly favour the development of new adaptations in the chaffinch which would thus be specially perpetuated on its earlier, traditional, ground. E. Dunbar Dunbar (1866:147) gives part of the text of a contract between Alexander Dunbar, Dean of Moray, and his gardeners, dated 7th November 1566, in which it is agreed that the latter shall "labor the gryt orcheart and gardings . . . indewring the space of thrie years and sall dycht and sned all the tries, and sall gude them with sufficient muk. . . ." He also gives a letter from Edinburgh to the Laird of Gordonstoun written by one J. Hunter on 18th February 1684, saying that a variety of fruit trees (apple and pear) had been delivered to the laird's servant (ibid.: 148). There is also an "Account of Garden Seeds, Garden Toolls, etc. furnished to Sir Robert Gordon" on 18th December 1718 (ibid.: 149). "Silver firr, cyprus, Lym-tree, Yew-tree, Hors Chestnutts, Hornbeam"—all these are included.

It is important to notice that we lay no stress on any possible etymology for "chye". We can, of course, suppose that it is onomatopoeic in origin, but this is of secondary interest. What is primary for our present purpose is that it is demonstrably differentiated from other forms and can thus be used as a marker. We lay stress, therefore, on speech as behaviour, using differences as indices. In any case, this is only a tentative correlation for "chye"; nor has any particular work as yet been done for the other pocket—"brichteye" in Galloway—although it is very probably susceptible of similar treatment and interpretation.

I wish to conclude by considering two important points in the technique of linguistic geography, both of which have emerged in the researches of the Linguistic Survey of Scotland, and both of which can be exemplified from its data, and in particular from its data on bird names. The first point concerns density of coverage; the second, misnamings (mistakenly so-called), or what W. Nelson Francis (1959:245) has called the "shifting referent".

The general importance of density of coverage in the work of a linguistic survey has already been noticed (supra: Catford: 1957:114), but it can be illustrated more particularly by a reference to K. G. Spencer's The Lapwing in Britain (also already noticed). Spencer writes: "The only part of Britain lacking in a local name for its lapwings is Shetland. This may be because the species is a comparatively recent colonist there and no permanent name has yet been created for it. Edmonston (1866) quoted in the English Dialect Dictionary gives 'Teewheep' and 'Teewhoap' and Saxby (1874) gives 'Tieves Nicket' and 'Tieves Geit', but G. T. Kay (in litt.) tells me that these are definitely not in use today' (1953:109).

Now, the first Postal Questionnaire of the Linguistic Survey received from Shetland (in 1953—the same year as Spencer's investigation) three separate instances of "tieves nacket" and one each of "cattifool", "dockin-fowl" and "whaup". One informant noted that "tieves nacket" was used "by old people" and another "occasionally, by anyone". There were, in all, 33 informants for Shetland as against the single informant used by Spencer. It seems clear, therefore, that only the greater density of coverage sustained by the Linguistic Survey was able to save it from too hasty a judgment.

So-called misnamings have come to be treated rather dispassionately in linguistic geography, and it has become axiomatic to assume that the informant (when fulfilling his proper function as informant) does not err. Dauzat, for instance, epitomised Gilliéron's attitude to his Atlas Linguistique de la France: "si le sujet n'a pas bien compris la question, s'il répond à côté, s'il se trompe ou commet un lapsus, tant pis! on ne corrigera pas, on donnera sa réponse telle quelle" (1922:10). From the files of the Linguistic Survey of Scotland there is evidence for "lapwing" given regularly as "peeweet", "teuchat", or "walloch" according to locality, but also, apparently irregularly, as "whaup" (once in Shetland, Kincardine, Fife, Stirling, Dumfriesshire, twice in Aberdeenshire; and thrice in Northumberland), and as "curlew" (once in Angus, Lanarkshire, Dumfriesshire, and twice in Northumberland). Similarly, a jackdaw is frequently called a crow, or even a "hoodie-crow". James Ritchie noted that in early Scottish records the name

"crane" is frequently applied to the heron (1920:376). In Sutherland the local name for the dipper is "king-fisher" (ibid.: 182).

We cannot simply regard data such as these as evidence of ignorance of the "real" name of the bird. Dauzat, speaking of "les consusions de sens" (1922:137) suggested that "la faculté de discrimination, de classification, de spécification n'est propre qu'aux esprits observateurs et doués d'un certain sens scientifique. L'homme distingue, dans son langage comme dans sa pensée, ce qui l'intéresse au point de vue utilitaire, et surtout ce qui touche à ses occupations". Nevertheless, this appeal to utility, although practical and sensible, is not entirely satisfactory, and might be amplified by a more recondite consideration of the influence of the folk-lore of birds. From this point of view, misnamings will probably come to hinge on the fact that "when a belief spreads into an area where the relevant object is missing, rare, or for some reason unsuitable, a surrogate is commonly found" (Armstrong 1958:48). Armstrong exemplifies this from the case of the duck which "sometimes acquires the symbolism of the goose in Europe and Asia", and from designs on early pottery where it is "difficult to decide whether designs . . . represent geese or swans, or even cranes, flamingoes or other long-necked birds" (loc. cit.). This might go some way towards covering the case of the confusion between cranes and herons in Scotland. Furthermore, the general feeling that corvine birds are birds of doom might also cover the case of jackdaws, crows and hoodie-crows. Armstrong, in fact, quotes (1958:74) a Scottish saying: "Nae gude ever cam' o' killin' black craws", with the implication that "craws" are to be considered as corvines in general.

We cannot, of course, push the theory of surrogates too far, although it is interesting to speculate on what latent evidence from the files of the Linguistic Survey might not be adduced in support. But there are other possibilities. It may be that so-called misnamings arise out of the complexities of the situation in which a language spreads into new territory. W. Nelson Francis, in considering his problem of the "shifting referent" found that for him (he is an American) the referent to "daddy long legs" was not the crane fly, but a long-legged spider with a small round body; and this, he discovered, was also sometimes so in East Anglia, with obvious implications. The important point is that it is difficult to pin down shifting referents at all if the coverage has not been sufficiently dense.

The two points of technique, therefore, which we have noticed, complement each other and ensure that vital information is not only not lost, but not ignored.

## REFERENCES

ARMSTRONG, E. A.

1958 Folk Lore of Birds. London.

BAXTER, E. V. and RINTOUL, L. J.

1953 The Birds of Scotland, 2 vols. Edinburgh.

CATFORD, J. C.

"The Linguistic Survey of Scotland", Orbis 6:105. Louvain.

DAUZAT, A.

1922 La géographie linguistique. Paris.

DUNBAR, E. DUNBAR

Social life in former days, chiefly in the Province of Moray, 2nd Series. Edinburgh.

FORBES, A. R.

1905 Gaelic names of Beasts (Mammalia), Birds, Fishes. Edinburgh.

FRANCIS, W. NELSON

"Some Dialect Isoglosses in England." American Speech 34:243. New York.

GILLIÉRON, J.

1918 Généalogie des mots qui désignent l'abeille. Paris.

GUMPERZ, J. J.

"Speech Variation and the study of Indian Civilisation."

American Anthropologist 63:976.

HARVIE-BROWN; J. A.

1879 The Capercaillie in Scotland. Edinburgh.

HARVIE-BROWN, J. A. and BUCKLEY, T. E.

1887 A Vertebrate Fauna of Sutherland, Caithness and West Cromarty. Edinburgh.

HARVIE-BROWN, J. A. and Macpherson, H. A.

1904 A Fauna of the North-West Highlands and Skye. Edinburgh.

HAY, H. M. DRUMMOND

"Report on the Ornithology of the East of Scotland from Fife and Aberdeenshire, inclusive." Scottish Naturalist 8:355. Edinburgh.

IORDAN, I. and ORR, J.

1937 An Introduction to Romance Linguistics. London.

KIRK[E], T.

"An Account of a Tour in Scotland, by Thomas Kirk Esq. of Cookridge." Appendix to Vol. II of Letters of Eminent Men addressed to Ralph Thoresby, F.R.S. London, 1832.

KIRKE, T.

"A Modern Account of Scotland by an English Gentleman."
P. Hume Brown. Early Travellers in Scotland. Edinburgh 1891.

LACK, D.

1954 Natural Regulation of Animal Numbers. Oxford.

McDavid, R. I., Jr.

"Structural Linguistics and Linguistic Geography." Orbis 10:36. Louvain.

Mackintosh, Brig. of Borlum

1727 An Essay on Ways and Means for enclosing, following planting etc. Scotland. Edinburgh and London.

McIntosh, A.

On Planning a Dialect Survey of Scotland. A lecture delivered at the Summer School of Linguistics, Ann Arbor, July 1949. Copy in Linguistic Survey Library. Mimeographed.

McIntosh, A.

"The Study of Scots Dialects in Relation to other Subjects."
Orbis 3:173. Louvain.

MALKIEL, Y.

"The Pattern of Progress in Romance Linguistics." Romance Philology 5:278. Berkeley and Los Angeles.

MAYCOCK, J. C.

"A Survey of Bird-Names in the Yorkshire Dialects." Trans. of the Yorkshire Dialect Society. Part LIII, vol. ix.

1954 Trans. of the Yorkshire Dialect Society. Part LVI, vol. x.

Moryson, Fynes

"An Itinerary written by Fynes Moryson, gent." London 1617. P. Hume Brown. Early Travellers in Scotland. Edinburgh 1891.

MUIRHEAD, G.

1889-95 Birds of Berwickshire. Edinburgh.

MURRAY, J. M.

"An Outline of the History of Forestry in Scotland up to the end of the nineteenth century." The Scottish Forestry Journal 49:1. Edinburgh.

NAIRNE, D.

"Notes on Highland Woods, Ancient and Modern." Trans. Gaelic Society of Inverness 17:170. Inverness.

NICHOLSON, E. M.

1951 Birds and Men. London.

RITCHIE, J.

1920 Influence of Man on Animal Life in Scotland. Cambridge.

ROEDDER, E. C.

1926 "Linguistic Geography." The Germanic Review 1:286.
New York.

SCHUCHARDT, H.

1922 Schuchardt-Brevier, ed. L. Spitzer. Halle.

SIBBALD, R.

1684 Prodromi Naturalis Historiae Scotiae. Edinburgh.

SPENCER, K. G.

1953 The Lapwing in Britain. London.

OLD STATISTICAL ACCOUNT

1791-99 Edinburgh.

New Statistical Account

1845 Edinburgh.

STEVEN, H. M.

"Forests and Forestry of Scotland." Scottish Geographical Magazine 67(2):110. Edinburgh.

St. John, C.

Natural History and Sport in Moray. Edinburgh.

SWAINSON, C.

1885 · Provincial Names and Folk-lore of British Birds. London.

Trail, J. W. H.

"Bird Names in Orkney." Scottish Naturalist 4:9. Edinburgh.

YAPP, W. B.

1962 Birds and Woods. London.