SUBJECTIVE DIALECT DIVISION IN GREAT BRITAIN

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THE MAIN TOPIC OF THIS PAPER is the investigation of English students' mental maps of English dialects, applying a multivariate analysis to the computerized data. Scotland, Wales, and Northern Ireland were characterized as dialectally very different from England. England was next divided into several areas stretching from north to south. Study of the results in comparison with various kinds of maps showed that mental maps of dialects seem to be heavily influenced by ordinary geographical division.

We should also attempt to explain the process of the formation of dialect images. Research in dialect maps should not stop at the geographical level. A speculative model of the mechanism behind the formation of mental maps of dialect shows that subjects formed a dialect image without a specific map in mind. Thus "dialect images" may be nearer to people's conceptions of dialects than mental maps are. The next step in perceptual dialectology will therefore be more fruitful if "dialect images" are taken into consideration. This kind of study will hopefully make a significant contribution to the sociopsychological study of dialect.

The study of mental maps of dialects or subjective dialect division flourished in Japan decades ago, and it has now been established as a field of dialectology in the United States, termed PERCEPTUAL DIALECTOLOGY (Preston 1989; see also Butters 1993). We can test the validity of the methodology by applying it to a different language—that is, English in Great Britain. Application to the English language is interesting because comparative or contrastive study with American English and Japanese can be easily executed.

A REVIEW OF STUDIES IN JAPANESE DIALECT IMAGE. Research in subjective dialect division seems to be achieving prominence in the United States now. Preston (1989, 4–13) points out that the field of study originated in the Netherlands and was later employed in Japanese dialectology. This was through the influence of a Belgian linguistic geographer, Willem Grootaers, who has lived in Japan since 1950. Grootaers and his coworkers have drawn up areal maps showing subjective dialect boundaries for several parts of Japan (Grootaers 1964; see also Mase's article in this volume, 162–70). Long (1993), who has also been influenced by Preston, has recently attempted to draw mental maps of the whole country.

Most of the initial Japanese studies were conducted over small areas. Sibata's paper (1959) on subjective dialect division is based on the Itoigawa area, which is the area covered in the comprehensive volumes of the *Linguistic Atlas of Itoigawa* (Sibata 1988–95). The conclusion of the Itoigawa study was that people's subjective dialect division is more influenced by old administrative areal divisions than by the dialect itself.

The next major study was of the mountainous areas in central Japan, by Mase (1992). His results were different from Sibata's in that the subjective dialect divisions coincided with actual dialectal differences.

In the early 1970s, research had been conducted in northern Japan over a larger area (Inoue 1972). Correspondence between subjective dialect division and actual dialectal differences was found in mountainous areas, but in geographically flat areas administrative areas were more influential. In Inoue (1972) I concluded that people's conception of dialect areas is influenced by a kind of mental map of the natural geography of the area. I have also tried to collect preliminary data on subjective dialect division for the whole of Japan, but I have found this study less rewarding than the study of dialect images, which will be explained next.

Inoue (1988) is concerned with perceptual dialectology and includes dialectometrical analysis by means of multivariate analysis of dialect images. Some tentative tests were also made which will help us to understand the mechanism of the formation process of a dialect image. The DIALECTAL SPEECH-GUESSING TEST is a method in which students are asked to listen to recorded speech of various areas. This method is similar to the Intelligibility Test conducted for Native American languages by Voegelin and Harris (1951). The results in Inoue (1988) showed that the students' conceptions of actual dialects are vague and incorrect. Students seem to be able to identify only the small number of dialects which are often heard in the mass media. The DIALECTAL WORD-GUESSING TEST is a method of making students listen to artificially accented words. High-school students in Tokyo were asked to guess the dialect for each word which was phonetically characterized. Several phonetic features were selected which are popularly known in Japan as markers of certain dialects, and the markers were correctly understood as symbolizing the dialects.

Following Inoue (1988), I investigated images of dialects. University students in various parts of Japan were asked to characterize the image of their own dialects using a method which is similar to the Semantic Differential Test once popular in psycholinguistics (Osgood, Suci, and Tannenbaum 1957). A multivariate technique was applied and the result showed clear geographical differences. The resultant map of dialect images in Japan appears in Inoue (1995).

Some helpful insights into the formation of dialect images were acquired from the studies listed above.

First, phonological characteristics of dialects were found not to be influential in the perception of dialects, while phonetic characteristics were. Moreover, the phonological perception of the evaluator was found to be essential. Japanese studies have shown no clear correspondence between dialect image and actual dialect. For example, two big neighboring cities, Osaka and Kyoto, are in sharp contrast as to dialect image (Inoue 1992). But this contrast does not appear on the national map of subjective dialect division. Nor can students actually identify the two dialects in recorded speech. Stereotypical judgments by students were often attested. It is also possible for students to give dialect images without listening to the speech itself.

The methodologically useful result of the investigation of dialect image was that an image was found to be composed of two factors: an intellectual factor and an emotional factor (Inoue 1989). Thus Preston's selection (1989, 51–52, 71–72) of evaluative words ("correct" and "pleasant") is appropriate in its use of terms for intellectual judgments and emotional reactions.
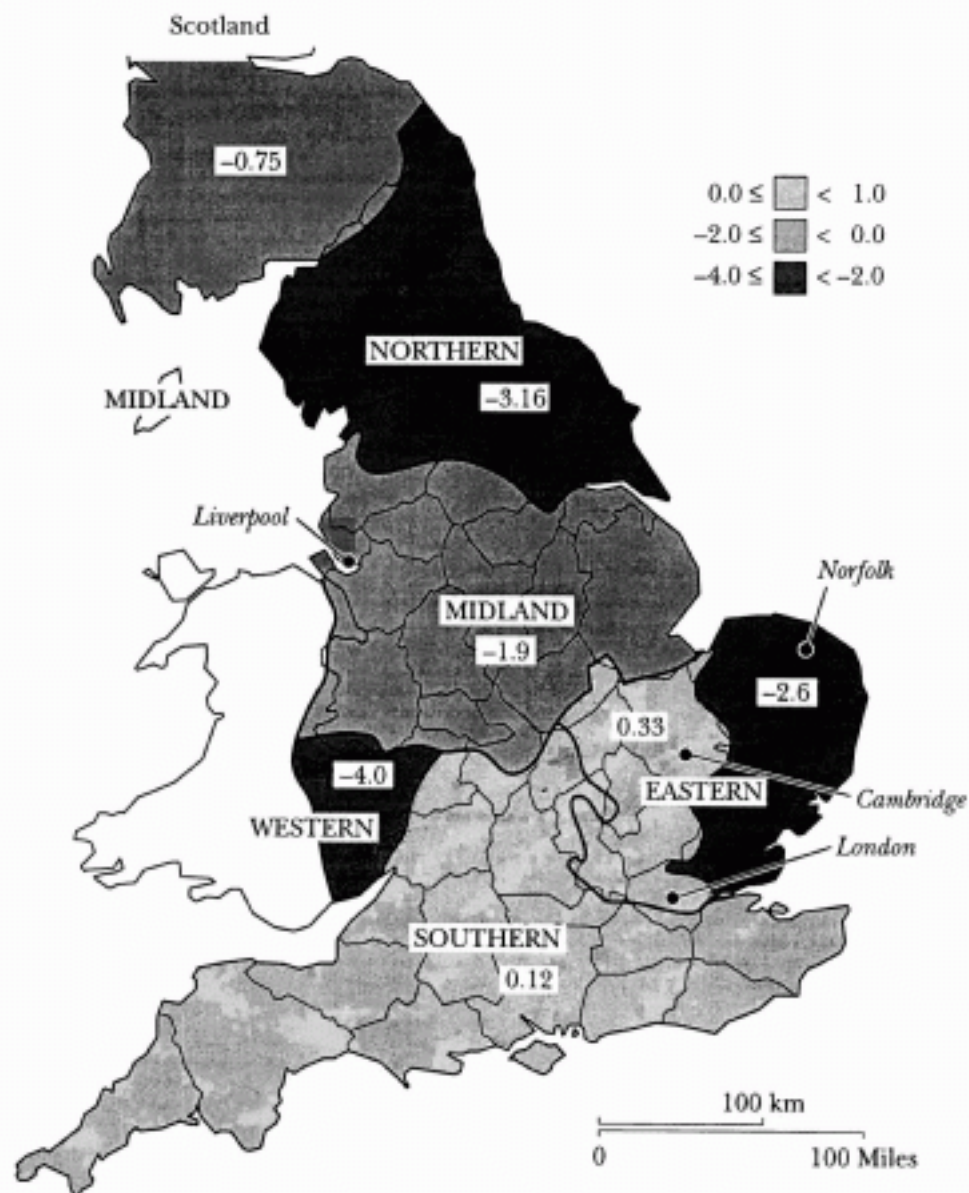
Dialect Image of English

The same methodology was applied to English dialect in Great Britain, with two aims: to understand better the dialectal structure of English in Great Britain and to test the validity of the methodology itself.

The actual research was planned while I was staying at Essex University in England in 1989. Students were asked to fill in a questionnaire including a map. The collection of the student data was carried out by staff members of several universities in Great Britain. The average values of the students' image of their own dialects were first calculated for each county (shire) in Great Britain, and one method of multivariate analysis was applied. The multivariate analysis indicated that dialect image was composed of two factors: ACCENTEDNESS/STANDARDNESS and URBANNESS/PASTORALNESS. The values for the accentedness factor are shown in map 1 (projected on the base map of dialect division in Brook 1963).[1] In map 1, the figures generally decrease with the distance from London, indicating a stronger perception of accentedness. The values are almost continuous from south to north. In Great Britain, the correlation between the degree of dialect image and the geographical distance from London can be confirmed, Scotland being an exception. A great difference in neighboring counties is shown eastward

MAP 1
Geographical Distribution of Students' Own Dialect Images
(average values of standardness projected on dialect division map in Brook 1963)

from London: here a clear break of values was observed along the border of Greater London and Essex.

The dialect image of several popular dialects, including Cambridge English and American English, was also investigated. Figure 1 shows the result of a multivariate analysis called Hayashi 3 (Hayashi 1952; see below,

FIGURE 1
Distribution of Dialects of British Students as a Result of Hayashi 3
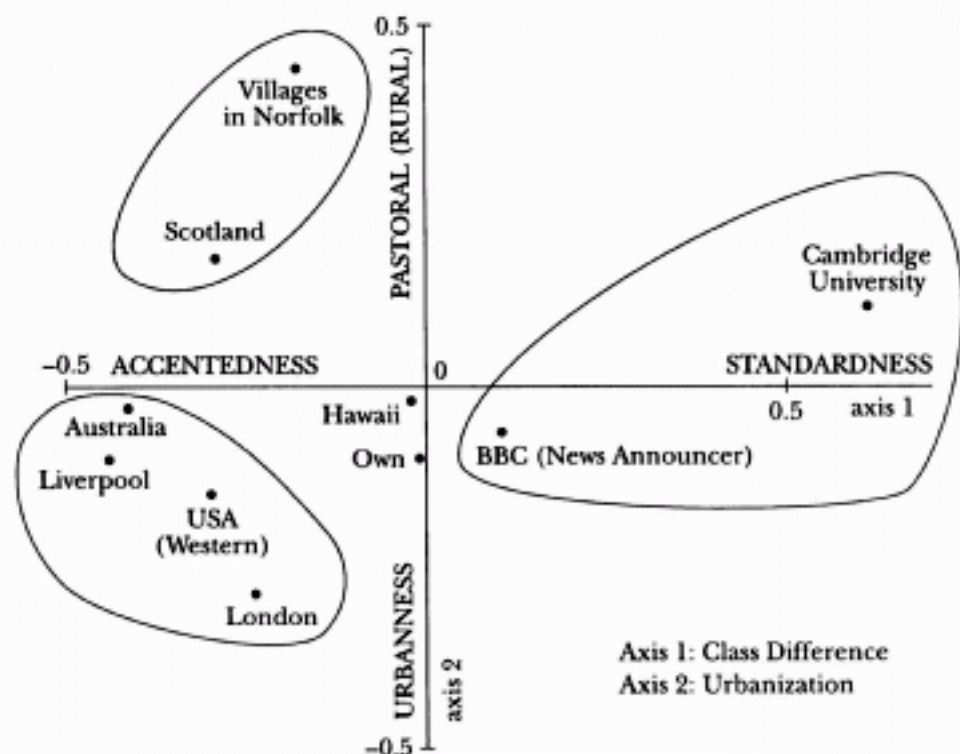
p. 151) showing, for example, that a western American accent sounds rather coarse but urban to British students.

SUBJECTIVE DIALECT DIVISION OF ENGLISH

In Great Britain a second type of research was conducted. A question about subjective dialect division was added at the end of my 1989 questionnaire, and students who volunteered were asked to draw lines on a British map in order to divide the areas according to the accents or dialects they perceived.[2]

The data were all put into machine-readable form. The information about geographical distribution was entered in a simplified form. This is quite different from methods used by Long (1993) or Preston (1989), in which actual positions of lines are exactly recorded on computer and on maps. In my method, the only information coded is whether or not a particular county is included in a subjective dialect division.

The data format can be understood by comparing one example of an answer sheet and its computerized form. Map 2 shows the lines drawn by

one student and is similar to the resultant subjective dialect division of this study as a whole as recorded on map 3. As an example of computer input, figure 2 shows the data format for student number 041. One line of the data corresponds to one subjective dialect area drawn on a map by one student. Each column represents a county of Great Britain; cities are listed at the top as an index. As student 041 divided the whole area into 13 dialectal areas,

MAP 2
Example of Data
(student number 041)

A. *Bedfordshire*
B. *Berkshire*
C. *Buckinghamshire*
D. *Cambridgeshire*
E. *Derbyshire*
F. *Gloucestershire*
G. *Great London*
H. *Greater Manchester*
I. *Hertfordshire*
J. *Mid Glamorgan*
K. *Northamptonshire*
L. *Nottinghamshire*
M. *Oxfordshire*
N. *South Glamorgan*
O. *South Yorkshire*
P. *Staffordshire*
Q. *Warwickshire*
R. *West Glamorgan*
S. *West Midlands*
T. *West Yorkshire*

FIGURE 2
Example of Data Input
(Student number 041)

	London	Bristol	Cardiff	Birming ham	Cam bridge	Nottin gham	Manc hester	Newcas tle	Edin burgh	Bel fast		
	11 11 2			1	11111						Southern	041 1
	211	11111111			2						Southwestern	041 2
		11				2					East Anglian	041 3
					121							041 4
				1111111		1 1 11					Midlands	041 5
			11111111 1	2							Welsh	041 6
						12						041 7
						2 1	2 1 1 111				Yorkshire	041 8
						211					Midlands	041 9
			2	2		2 11121	2					041 10
							2 21111				Geordie	041 11
								111111111			Scottish	041 12
										11	Irish	041 13

0000000001111111111222222222233333333334444444444555555555566666666667777777777888888888899
0123456781234567812345678123456781234567812345678123456781234567812345678123456781234567891 2

MAP 3
Subjective Dialect Division of Great Britain

A. *Bedfordshire*	L. *Mid Glamorgan*
B. *Berkshire*	M. *Northamptonshire*
C. *Buckinghamshire*	N. *Nottinghamshire*
D. *Cambridgeshire*	O. *Oxfordshire*
E. *Cleveland*	P. *South Glamorgan*
F. *Derbyshire*	Q. *South Yorkshire*
G. *Gloucestershire*	R. *Staffordshire*
H. *Great London*	S. *Warwickshire*
I. *Greater Manchester*	T. *West Glamorgan*
J. *Gwent*	U. *West Midlands*
K. *Hertfordshire*	V. *West Yorkshire*

13 lines were prepared for data input. For each line of the data format, the counties which were included in the area are shown by the numeric "1." When the students assigned labels to the dialect areas, each label was input at the ends of the lines; minute differences of distribution within a county were not considered. In principle, numeric "1" was input in a line when counties were fully included in an area, numeric "1" was input in two lines when one county was divided into two areas, and numeric "2" was input

when a part of one county was included in a neighboring area apparently by chance, as a rough guess or by a slip of the pen. Thus when one county is separated by a line, two "1"s are input in the two corresponding lines of data.

This method simplifies the work in data input and makes calculation of multivariate analysis easier. The theoretical basis of this simplified format is the belief that lines drawn by the students may be only approximate and not precise. If students often make mistakes or rough guesses in recording where they perceive dialect boundaries, it is not worth the trouble of inputting the exact positions of lines.

We must admit that people are often more sensitive to dialectal differences near their birthplaces. In this case, the lines are usually drawn meticulously and can be distinguished from rough guesses or slips of pens.

CALCULATION OF DIVIDING LINES. The patterns of lines drawn can then be analyzed by simple calculation. By counting the frequency of answers "1" for each county, the counties which are divided by lines (or within which dialect differences are noticed) can be pointed out. Where the number of "1"s is more than the average, dividing lines often run within the county. The map for student 041 shows (1) that the counties near the great dividing lines of dialect areas are divided into two, and (2) that the counties with irregular boundaries are divided into two. These facts suggest that counties are divided mainly because of the difficulty of drawing exact lines along the county border and not because of students' confidence that the county should be dialectally subdivided.

RESULTANT MAP AS A CONCLUSION. We are now ready to analyze the entire pattern of subjective dialect division offered by English students in this study. The simple counting of labels given to dialect areas was helpful in forming a general idea. Next, one method of multivariate analysis was applied, and subjective distances among the counties were calculated. In order to make the conclusion clearer, see map 3.

RESULTS: SIMPLE COUNTING. Seventy-seven students filled in the maps. There were two types of answers on the maps: one type with dividing lines only, and another with labels added. Sixty percent of the students who drew dividing lines on the map labeled the areas. A total of 876 areas were obtained. Although one student divided Great Britain into 28 areas and three divided it into four areas, the average number of subjective dialect areas of Great Britain was 11.4 (= 876/77).

The data with labels were analyzed first. About 100 different labels were given in all. Seventeen of these were given by more than six students. The

three most frequent of the 17 labels were IRISH, SCOTTISH (or SCOT, SCOTS), and WELSH. But further study is necessary to ascertain the linguistic status of these areas. Some students may have given these labels to show that languages other than English are spoken there. But most of the students were probably intending to indicate that the English now spoken there is a little different from the English used in England.

I listed the students' dialect labels for each county and selected the label used most often to represent that county. I then attempted a division of the counties according to these dialect labels. The resultant dialect division by the names is shown in map 3.

There is a problem of hierarchy of dialect division which was pointed out by Long (personal communication, Aug. 1992). For example, when the area called GEORDIE is drawn on a map, does the student consider it a part (or subdivision) of the NORTHERN dialect or is it an independent area which is on the same level as NORTHERN? This question is difficult to answer if the student does not clearly indicate the relationship. But the labels given by many students provide several hints. For example, the Liverpool area is labeled SCOUSE by some and NORTHERN by others. This shows that SCOUSE may be a subdivision of the NORTHERN area, and that there are hierarchical systems in dialect areas. In map 3 the labels with uppercase letters show the large scale divisions, and the labels with lowercase letters show subdivisions of the areas.

However, map 3 does not show hierarchical relationships, and further explanation is necessary. As for England, the divisions which cover a wide area are NORTHERN, MIDLAND, and SOUTHERN. Further division of SOUTHERN is often given as EASTERN and WESTERN. Other dialectally conspicuous counties are labeled, such as YORK (or YORKSHIRE), LANCASHIRE, and NORFOLK, as well as LONDON and the HOME COUNTIES around the London metropolitan area. Sometimes nicknames of dialects for big cities are given: for example, COCKNEY for London, SCOUSE (or LIVERPUDLIAN) for Liverpool, GEORDIE for Newcastle upon Tyne, BRUMMY or BRUMMIES for Birmingham.

RESULTS: MULTIVARIATE ANALYSIS. It is relatively easy to analyze according to the simple counting method when labels are given as cues. However, the distribution pattern of the maps without labels needs to be analyzed using some quantificational method. For this kind of non-numerical, categorical data, one kind of multivariate analysis, called HAYASHI 3—or more exactly, HAYASHI'S QUANTIFICATIONAL THEORY TYPE 3 (Hayashi 1952)—is applicable and provides further insight into the student subjects' conceptions of areal division. The pattern of grouping the counties can be treated and the results can be interpreted as Factor Analysis for numerical data.

The results of HAYASHI 3 can be conveniently interpreted when the resultant values of the first and second axes are plotted on a graph. The first and second axes approximately correspond to the first and second factors of factor analysis. In figures 3 and 4, counties which were often grouped together by the student subjects are plotted close to each other because of similar values of the first and second axes, and counties which were rarely grouped together exhibit scattered plotting. The numbers in figures 3 and 4 are the county codes used for this analysis. (For reference, the numbers also appear in figure 2 and map 3.) Subjective distances between the counties are thus shown by application of the multidimensional analysis. Distance or difference among the counties would be difficult to calculate otherwise.

Various applications of HAYASHI 3 were tried, each time with different conditions of calculation. In some cases the analyses were applied to the whole data, and in other cases to England only.

FIGURE 3
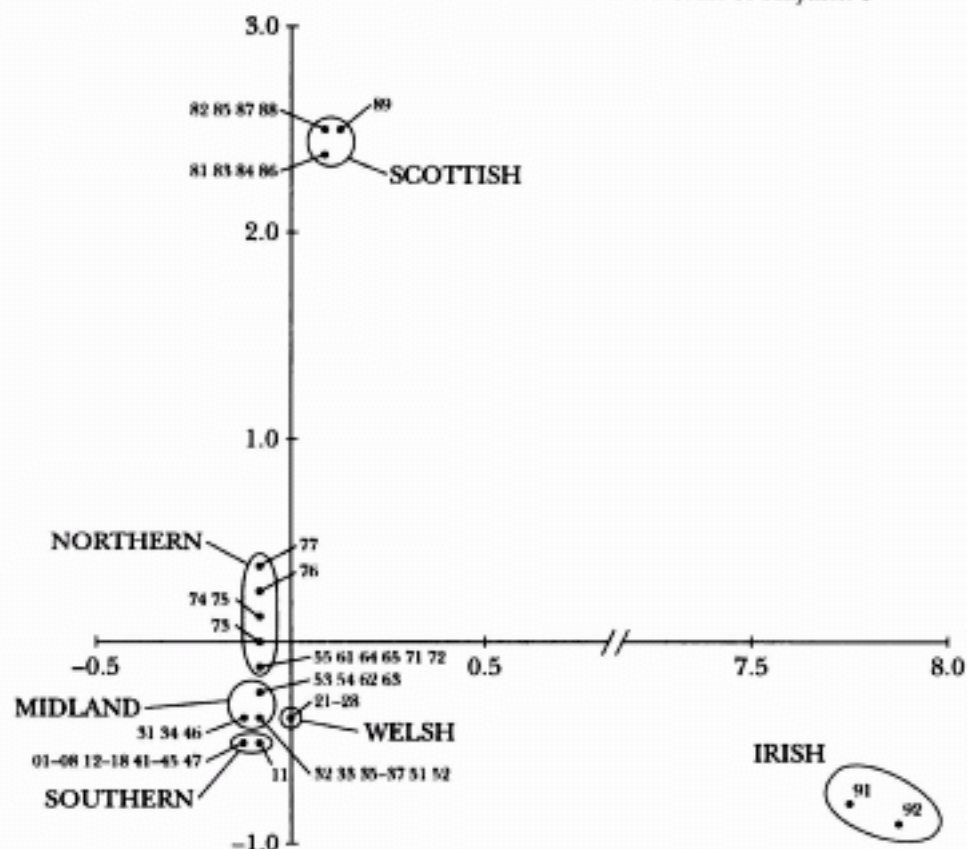Distribution Table of Great Britain Dialects as a Result of Hayashi 3

FIGURE 4
Distribution of Dialects as a Result of Hayashi 3
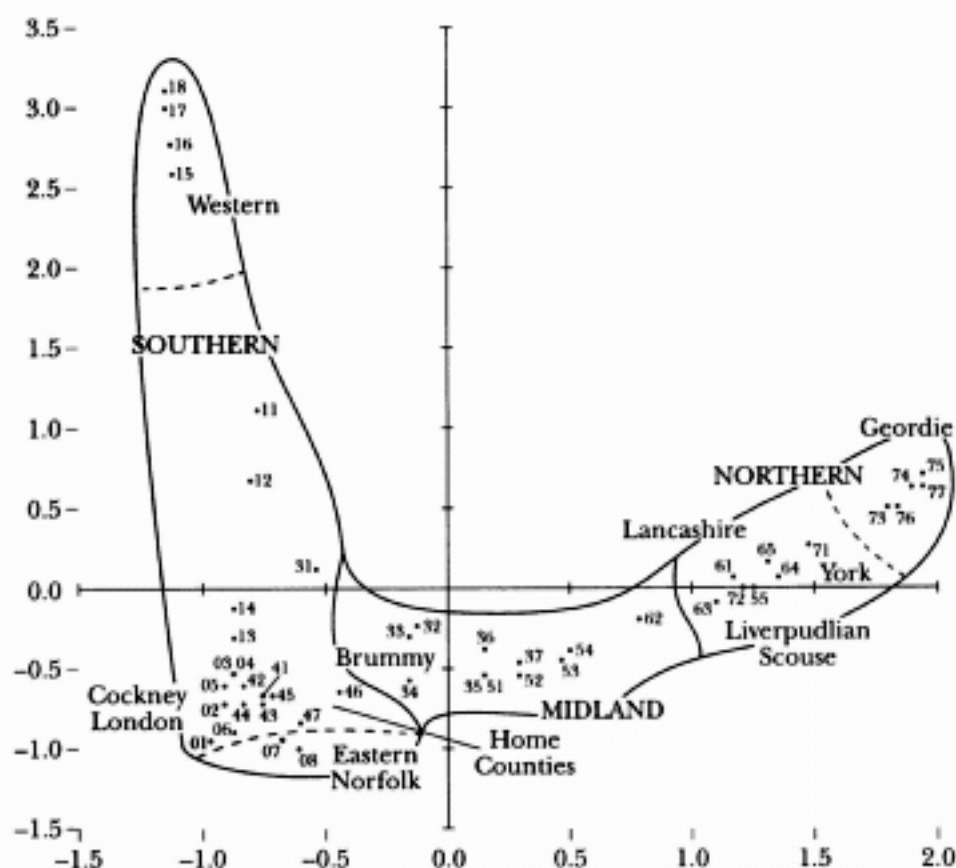(England only)

Figure 3 shows the results for the whole of Great Britain and shows that subjects considered IRISH, SCOTTISH, and WELSH different in that order. As the values of these three areas are so different from that of ENGLAND, another calculation is necessary to investigate the internal divisions of ENGLAND. Figure 4 is the result of the analysis when only the counties of ENGLAND were selected. This figure seems to reflect actual geographical distribution in the form of a map of England which is tilted 90 degrees. Counties in England are arranged into three groups by the value of the first (horizontal) axis, that is, into NORTHERN, MIDLAND, and SOUTHERN. But by the second (vertical) axis, SOUTHERN dialects seem to be divided into WESTERN and EASTERN. In this figure the interrelationship of counties is shown diagrammatically. The same result can be shown geographically on a map by drawing thick lines between dialectally different counties, as in

map 3. This result shows the usefulness of the multivariate analysis in classifying a large amount of non-numerical data.

Cluster Analysis was further applied to the same data, but the result was not statistically significant. This is perhaps because the data were not numerical (continuous) but categorical (nominal). Further processing of these categorical data into numerical values with the technique utilitized by Goebl (1982), for example, would be interesting.

COMPARISON WITH OTHER MAPS

COMPARISON WITH DIALECT IMAGE. The student subjects' subjective dialect division was shown above in the form of maps. The next step is to investigate the origin of this division. Map 3 will be compared with several kinds of distribution maps.

First, the map will be compared with dialect image. Previous studies of dialect image in Japanese and English showed clear and reasonable results (Inoue 1993). Classification of Japanese and English dialects was made possible, reflecting perhaps a stereotypical reaction to the dialects. The English dialect image map (map 1), which was derived from the same data, was compared with map 3, but no correspondence was clear. The students' conception of dialect division and dialect image seem to be independent. This issue will be discussed later.

COMPARISON WITH DIALECT DIVISION. As dialectologists we would like to know whether this subjective dialect division reflects any dialectal distribution. If it does, the map will show what kind of dialectological phenomenon most influences the students' subjective dialectal division.

However, there are no maps showing a pattern corresponding to the subjective dialect division. Many attempts at dialect division and classification by scholars were compared with map 3, for example, map 1 from Brook (1963, 153), map 4 from Viereck (1986, 250), and a map by Trudgill (1990, 33), which is shown as map 5. Most of the classifications coincided, in that England could be divided into NORTHERN, MIDLAND, and SOUTHERN. The dividing line between NORTHERN and MIDLAND was sometimes similar. But no existing classification completely matched the students' subjective dialect division when counties were compared one by one. Most of the dialect maps fail to show what kind of dialectal features were actually used to draw dividing lines. The results of recent research on dialectometry were referred to, especially the results of multivariate analysis; the recent works of Viereck (1986, 1992) were especially helpful because the maps in these studies are based on numerous concrete distribution data.

MAP 4
Dialect Division by Viereck (1986)

SCOTLAND

—— 3–5 heteromorphs
━━ 6–8 heteromorphs
━━ 9–13 heteromorphs

WALES

100 km

0   100 Miles

The geographical distribution of individual dialect features was then considered. The next possible step would be to compare the subjective data with computerized distribution data of individual linguistic features. Multivariate analysis would be useful to find the features which show similar or identical distribution (Inoue and Fukushima, forthcoming).

MAP 5
Dialect Divisions by Trudgill (1990)

COMPARISON WITH ORDINARY GEOGRAPHICAL MAPS. Maps students use in primary- and secondary-school geography classes in England seem to influence the students' geographical conceptions. Various school educational maps and maps used for special purposes—for example, weather maps—were thus collected. Commonly used areal divisions showed an approxi-

mate correspondence with students' subjective dialect division. Labels such as NORTHERN, SOUTHERN, and MIDLAND are used often, though the exact positions of dividing lines differ. This fact suggests the stereotypical influence of geographical labels.

This study of perceptual dialectology or subjective dialect division of English was planned in order to look for linguistic clues of people's perception of dialects. But the English data so far seem to show no clear dialectal background. Further study will be necessary to confirm this tentative and discouraging conclusion.

DISCUSSION

This study so far is only a first attempt at the study of perceptual dialectology in Great Britain. Our results have been compared with those in another country, Japan, in order to see if there are common features. If universal ideas and tendencies in the subjective dimension of dialects are found, such studies will become more fruitful. Contrastive study with results for American dialects found by Preston (e.g., 1989) should also give effective results.

Inoue (1989, 1995) presents figure 5 to show the relation between dialect image and subjective dialect division; it poses subjective dialect division as one of the central terms in perceptual dialectology. This figure suggests that the underlying mechanism of a dialect image is twofold and that the same can be said for the subjective dialect division: (1) linguistic, influenced by dialect systems, and (2) nonlinguistic or sociopsychological (e.g., area images or mental maps).

FIGURE 5
Subjective Dialect Division and Dialect Image
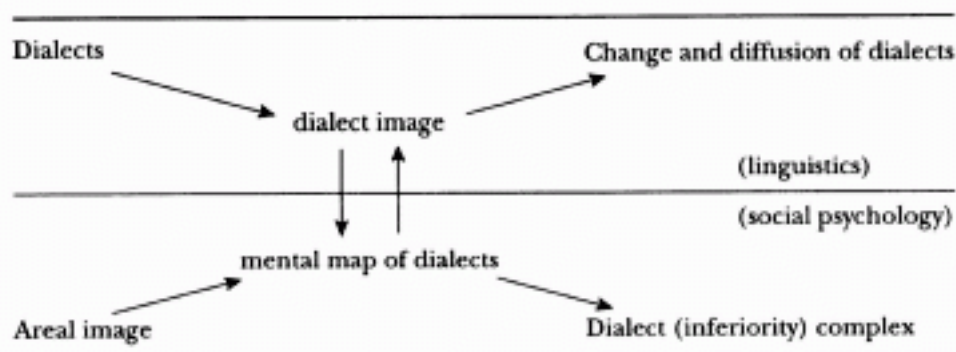
MECHANISM OF FORMATION OF DIALECT IMAGE. The basic mechanism of the formation of a subjective dialect division may distinguish two types of mechanisms, one dialectal and the other semantic.

DIALECTAL. Two kinds of experiences may contribute to form a subjective dialect division, the INDIVIDUAL and the COLLECTIVE. The INDIVIDUAL source of a speaker's dialect division is derived from actual first-hand linguistic experience; some linguistic features must have acted as a clue to indicate the dialectal difference. The COLLECTIVE source of dialect images of subjective dialect areas is found in the stereotypes perpetuated by mass media, independent of the personal experience of any individual. Images used in the media are often a conglomeration of people's past experiences, and they induce as well as reinforce ordinary people's images of the corresponding subjective dialect areas.

SEMANTIC PROBLEMS OF DIALECTAL TERMS. Of course, the mapping method is not perfect; we need to be cautious about drawing conclusions from maps. The relation between a dialect image and a subjective dialect map can be understood as a general semantic problem, like that of color terms or constellations in the night sky. Experts in the field may classify a whole semantic field with words, but laypersons usually know only one portion of the whole semantic field. Ordinary people's ideas are often based on fragmentary experiences. People's conception of dialect is the same. Obviously, no nonlinguist knows the dialects of a language completely. The layperson's knowledge is sporadic and is in the form of points on an abstract surface, not in the form of actual two-dimensional geographical surfaces. When laypersons are asked to classify the whole surface of a country or a part of a country, they must try to do it on the basis of their partial knowledge. Separating and dividing the earth's surface in the form of maps does not reflect the speaker's consciousness of dialects. We should thus be cautious of answers in the form of maps.

We may also doubt whether laypersons understand dialect differences in the form of geographical maps (Preston 1989, 14–22). When people actually travel around an area either by car or on foot, a kind of (somewhat skewed) mental map may exist in their heads. But as for dialect images, people can often hear dialect spoken without actually going to the place where it is spoken. Moreover, people often form dialect images even without listening to the actual dialect. Stereotypical images of a place or people living there help form dialect images. Thus, using maps to grasp people's images of dialects is not always appropriate.

The above result, that the subjective dialect division did not coincide with any concrete dialectal feature, must have derived from this mecha-

nism. The same doubt will apply to the study of mental maps in general. But still we cannot deny that a subjective dialect division or dialectal mental map is convenient and important as an analytical tool for secular dialectology or perceptual dialectology.

Conclusion: Two Directions for the Development of Mental Maps

The above results indicate that subjective dialect division is not based only on dialect itself. Thus further development of the study of subjective dialect division is possible in two directions: (1) the formation of combination maps—in looking for relationships with traditional dialectology, and (2) the inclusion of dialect images—in looking for a psycholinguistic foundation.

This means that perceptual dialectology can develop in two main directions.

1. Mapping has long been the main concern in the field of linguistic geography. In my study, only subjective dialect boundaries were studied. Tests must be devised to look for individual linguistic features which influence perception of dialects. Such tests will also constitute a new field of dialectometry, as statistical analysis is useful and necessary. The purpose of such tests is twofold: (a) to see which linguistic features are effective in forming subjective dialect divisions—not all the linguistic features are equal psychologically (the concepts of stereotype, marker, and indicator advocated by Labov 1972 will be useful); and (b) to see which linguistic features are effective for perception in general. Perception tests in my study of Japanese dialects (Inoue 1973) showed that some phonetic features are effective in creating an image of some dialects. Whether any vowels or consonants are influential in perception is a basic problem of perceptual dialectology. These features are often reflected in "dialect souvenirs" for tourists or in popular books on dialects. This would be a development in the field of "secular dialectology."

2. A second possible development for perceptual dialectology is the inclusion of the study of dialect image. Dialect images should be studied if we want to know the actual form of people's conceptions of dialects. People's images of dialect are not flat or monotonous ones which a mere map can do complete justice to. The images are more complicated and dynamic, as shown in my previous study (Inoue 1989, 1995). Maps can only inadequately show the real structure of a dialect image, which should be understood multidimensionally. Research in the mental maps of dialects should now take off from the earth's surface and fly into the human mind.

Notes

The data for this study were gathered with the cooperation of scholars from many universities. In England, Professors Peter Trudgill, Marcel Tatham, Doug Arnold, David Britain, and many other staff members of the University of Essex were very helpful. Professors Jennie Cheshire of London University, Sandra Harris of Trent Polytechnic Nottingham, and David Clement of the University of Edinburgh were also kind enough to distribute and collect questionnaires. I am greatly indebted to all the people who cooperated to allow me to carry out this study. Data processing has been done by GLAPS (Generalized Linguistic Atlas Printing System), a packaged program developed by Professor Tsunao Ogino, and by SPSS2 developed by HITAC Computer Company. This paper is a revised version of a paper read at the session "In Honor of Takesi Sibata" at the Annual Meeting of American Dialect Society, held in New York on 29 Dec. 1992 (original title: "Subjective Dialect Division of English").

1. The differences in degrees of urbanness were slight, partly because the evaluative words used were few.

2. The subjects were students from various parts of Great Britain, mainly from Essex University, northeast of London. The map portion of the questionnaire was used in Great Britain only, though the part concerned with dialect image was also used in Australia. The map (reproduced here as map 2 with the dialect boundary lines and dialect names inscribed by student 041) had the county names and boundaries printed on it.

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