Linguistic change and diffusion: description and explanation in sociolinguistic dialect geography

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ABSTRACT

Linguistic geography has remained relatively unaffected by recent developments in sociolinguistic theory and method and theoretical geography. In this paper it is argued that insights and techniques from both these disciplines will be of value in improving descriptions of geographical variation in language, and that these improvements will in turn lead to more adequate explanations for certain of the social and spatial characteristics of linguistic change. Evidence in favour of a sociolinguistic methodology and new cartographic techniques in dialect geography is drawn from empirical studies in urban dialectology, in East Anglia, England, and rural dialectology, in Norway. (Sociolinguistic variation, dialectology, linguistic change, British English, Norwegian.)

William Labov's Social Stratification of English in New York City has made a number of very important contributions to linguistic theory and practice. Among these are the development of the concept of the linguistic variable, which has provided linguists with a means of measuring and describing gradient and variable linguistic features, and the adoption of certain aspects of sociological methodology (particularly sampling and social class index construction), which has permitted a detailed study of the covariation of linguistic and social phenomena. This in turn has enabled us to achieve a clearer understanding of the nature of the relationship between language and various sociological parameters, and increased our knowledge about the social setting of linguistic change. In this paper I want to argue that the linguistic variable, together with a number of methodological and theoretical insights from human geography, can similarly improve our knowledge of the relationship between language and geography, and of the geographical setting of linguistic change.

In section 1 I shall suggest some reasons for considering the improvement of

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current descriptions and explanations of geographical variation in language. Section 2 will contain suggestions, based on the work of cultural geographers, for ways in which improvements in descriptions can be effected, and section 3 will consist of an illustration of these improvements, based on empirical research carried out in a Norwegian speech community. In section 4 we shall examine suggestions for improvements in explanations, with assistance from data obtained in empirical studies made in East Anglia, England, and in section 5 we shall again illustrate these improvements with reference to the Norwegian data.

1. Description and Explanation in Linguistic Geography.

Labov's methodology of correlating the variable linguistic data that he wishes to investigate to previously established sociological categories such as age, sex and social class has not been without its critics. De Camp (1977) has written:

a linguistic geographer would be properly horrified at the following suggestion: let us use state boundaries as preconceived pigeonholes for sorting the data from an American linguistic atlas, and then merely indicate the percentage of New York informants who say past as opposed to bucket, the equivalent percentage for Pennsylvanians, for Virginians, etc. Why then have sociolinguists so often correlated their linguistic data to preconceived categories of age, income, education, etc., instead of correlating these non-linguistic variables to the linguistic data?

De Camp's objection is somewhat puzzling. In any study it is usual and sensible to hold constant those variables which one is not investigating (such as income and age), and study the (in this case) linguistic variation as it relates to these constants. It would be useful to correlate age and income to linguistic data, as De Camp suggests, only if one wanted to employ language as a tool for establishing or investigating the existence of particular social groups. However, this quotation does provide a useful introduction to one aspect of the subject under discussion here. I want to suggest that the (hypothetical) dialectological methodology left by De Camp to be absorbed bears a close resemblance to the kind of approach which linguistic geography ought to be adopting. I would like, in other words, to suggest that, far from sociolinguists learning from the example of dialectologists, as De Camp proposes, the reverse should be the case. Dialectologists, I would argue, should begin to consider the possibility of correlating their data, as geographers have done, with 'preconceived' geographical units. These units should not, however, be entities so disparate or non-comparable as American states.

The reasoning behind this suggestion is twofold. First, I want to argue that dialectologists should not be content simply to describe the geographical distribution of linguistic features. They should also be concerned to explain — or perhaps, more accurately, to adduce reasons for — this distribution. Only in this way will we be able to arrive at an understanding of the sociolinguistic mechanisms that lie behind the geographical distribution of linguistic phenomena, the location of isoglosses, and the diffusion of linguistic innovations. If we are to achieve this understanding we need to be able to say exactly why and how linguistic features, under linguistic change, are diffused from one location or social group to another. This does not mean to say, of course, that linguistic geography, hitherto, has not been concerned with explanations of this type. German dialectology, in particular, certainly has (see Bach 1950; Moser 1954; Wagner 1927, amongst several others). Kurath (1957), too, contains many references to explanatory factors and studies. I merely wish to suggest that in certain respects dialectology as a whole has not been sufficiently concerned with explanation.

Secondly, I want to argue that this relative lack of interest in explanation in linguistic geography is the result of the fact that, paradoxically enough, the descriptions themselves have not been sufficiently full or accurate. That is, not only has dialectology remained, to some extent at least, in the descriptive stage, but, as Pickford (1956) has also pointed out, the descriptions provided have often been inadequate. It is not possible to provide explanations for phenomena for which there is insufficient information. I therefore want to propose that it may be possible to effect an improvement in our descriptions of geographical dialects — and hence in our ability to explain dialect phenomena — by adopting a geographical and sociolinguistic-influenced methodology not unlike that dismissed by De Camp. If such a methodology proves to be successful, then explanations may follow.

Let us first of all consider an example of the way in which inadequate descriptions, based on traditional methodology, may hamper explanation. Map 1 shows the geographical distribution of post-vocalic /r/ in England in the items yard and farm and is based on information contained in the publications of the Survey of English Dialects (Orton et al. 1962). This map represents a description of the type normally provided by dialect surveys, and one which is of considerable interest and value. However, if we are keen to achieve an understanding of some of the processes of linguistic change involved here, it is desirable that we should be able to explain why the isoglosses shown on the map are exactly where they are. In fact it proves very difficult if not impossible to do this. Say, for example, that we wish to explain the, on the face of it, rather surprising fact that the post-vocalic /r/ isogloss runs very close indeed to London. How do we explain the fact that the areas immediately to the south and west of London have been so little affected by the speech of the metropolis, which has probably been r-less as long as 300 or 400 years (see Wyld 1956: 299)? The answer, of course, is that they have been affected. It is simply the case that our description is inadequate and fails to show this: except for the very small minority of conservative rural dialect speakers in this area, the isogloss drawn on the map is not in fact where it
is shown to be, although where exactly it is we cannot at this stage say — except that it is well to the south and west somewhere, depending on age, social class, and similar factors. We cannot explain the current distribution of post-vocalic /ə/ in the London area simply because we do not know what it is. (The map is also very inaccurate in other places: Liverpool and some other urban areas in the north-west, for example, are also r-less.)

Map 2 provides a second example. This map shows the distribution of uvular r in the languages of western Europe, in educated speech. The spread of the uvular r pronunciation in Europe is a rather remarkable phenomenon of considerable sociolinguistic interest, and one that we should like to be able to explain.

This map, and the one that follows, map 3, have proved very difficult to compile — few full and accurate descriptions are available — and it is doubtless very inaccurate in many details. I hope, however, that the main point will be clear: if

\[1\] I am including under the heading of 'uvular r' all uvular and velar pronunciations of this type, including trills, fricatives and frictionless continuants. The maps are based on the following sources: tape-recordings and reports from Reading University students studying abroad; my own tape-recordings and observations made in Belgium, Holland,
we require an explanation for the current distribution of uvular r, map 2 is very misleading. The back (dorsal) pronunciation of /r/ is thought to have started in Paris (but see Moulton 1952) in the seventeenth century (see, for example, Ewert 1963; and Martinet 1965) and we know that it had reached Copenhagen by 1780 (Skautrup 1968). It is now standard in French, German and Danish, and partly so in Dutch, Norwegian and Swedish. It also occurs in areas not shown in map 2; it is found in the speech of a number of Italian speakers, particularly in the north-west industry, Turin, area; in certain varieties of Oslo Norwegian; in some types of North Frisian; in the north-east of England; and in parts of North Wales. Outside Europe, uvular r also occurs in some varieties of Afrikaans and Canadian French. It is not absolutely clear whether the French pronunciations, or the occurrence of uvular r in certain varieties of Portuguese and Spanish, are related phenomena or not.

But how exactly did uvular r achieve this distribution? Map 2 suggests that, for the most part, it spread as an innovation gradually across the countryside until it arrived at the configuration it has today. This is misleading, and it is misleading because the map is very incomplete. Map 2 fails to show how many people in a given area use a uvular r pronunciation, how often they use it, when and where they use it, and what sort of people they are. The social density of usage is not indicated, and map 2 is therefore as inaccurate as map 1: the speech of only a few social groups is portrayed.

The extent to which the explanation suggested by map 2 is false is indicated by map 3 which, although it itself is very incomplete, does show the distribution of uvular r in greater social detail. It is true that we still do not have a full or accurate description, but we have been able to add an extra dimension to the description which should improve any explanation we attempt to make. Map 3 suggests that the diffusion of this feature as an innovation has indeed taken place through gradual spread as far as large parts of France and adjacent areas of Belgium, Switzerland and south-west Germany are concerned, regardless of language frontiers. But it also indicates that, elsewhere, diffusion has taken the form of the jumping of uvular r from one large urban centre to another, particularly The Hague, Cologne, Berlin, Copenhagen, Kristiansand and Bergen. In map 2, in other words, the role of the urban centre in the diffusion of innovations is obscured. This is particularly undesirable since linguistic innovation diffusion of this type is doubtless a common phenomenon. Panov (1968), for example, provides interesting sociolinguistic data for the same type of process in Russian.

2. Description in Geography

The contrast between maps 2 and 3 suggests that we are unable to attempt explanations of the geographical distribution of linguistic phenomena until our descriptions are full and accurate, and our dialect maps greatly improved. What, ideally, would such maps look like? Consider map 4. This map gives a full and
accurate description of the distribution of a particular phenomenon in space at a particular time. For this reason it is susceptible of explanation: the spatial diffusion patterns of this phenomenon as an innovation are clear, and tell us much about the processes involved. This, I suggest, might well be what dialect maps should look like. Map 4 is taken from the work of the Swedish geographer Hagerstrand (1952). How was this map, and others like it, compiled? The technique is almost exactly the one rejected by De Camp. The landscape is divided up into a number of carefully placed areas of uniform size and shape, and the investigator then measures the amount, number or percentage of the particular phenomenon in which he is interested in each area in turn. (In this case the areas used are hexagonal. Discussion of the relative merits of different shapes, as well as of the statistical and cartographical problems that arise in work of this kind, can be found in the Hagerstrand paper itself, as well as in, for instance, Haggett 1965; and Robinson & Sale 1969, chapter 7.)

Hagerstrand (1952) has written: "When studying changes we cannot draw boundary lines and observe their displacements. Instead we must ascertain the spatial diffusion of ratios. That is, if the dialectologist were to adopt this approach, he would have to calculate the percentage of, say, post-vocalic /r/ employed in each geographical cell (at given points in time) in exactly the same way that Labov and others have calculated percentages for different social class cells. This methodology will, of course, be considerably more complex than the methods traditionally employed in linguistic geography: sampling of some kind, for example, will need to be used. However, as a result of the development of sociolinguistic urban dialectology we now have the techniques for carrying out work of this sort. It is only in this way, moreover, that we will be able to obtain information about the geographical distribution of linguistic features that is detailed enough to be of any value. We do not just require to know the geographical location of a linguistic phenomenon; we need to know its 'density' and social distribution as well.

In his work as a whole Hagerstrand (1965a; 1965b; 1966; 1967a; 1967b) has concentrated on the geographical diffusion of technical innovations, but his research has several important implications for a study of linguistic innovations. Hagerstrand (1952) is concerned - as we were above in our discussion of the spread of uvular /r/ - with patterns of diffusion. His basic theme is that the diffusion of an innovation is the result of the interplay of exposure to information about the innovation and factors leading to resistance to its adoption, and it is worth noting that he considers interpersonal contacts to be much more influential than the mass media. (Much is often made, by writers on language, of the role of television, in particular, in the changing of speakers' linguistic habits. It seems to me that, while the media do play a part in the dissemination of new vocabulary and fashionable idioms, they have almost no effect at all in phonological or grammatical change. This is because they require only passive understanding on the part of the hearer or reader, and involve no interaction between innovator and potential receptor. Studies like many of those contained in Laver & Hutchenson (1973) may in the future be able to tell us more about what exactly leads speakers to modify their speech and adopt the linguistic characteristics of those they are interacting with, and what role this plays in linguistic change.) Brown & Moore (1972) write:

Hagerstrand posits that the destination of personal messages depends upon the sender's network of inter-personal contacts and that the configuration of this network is primarily dependent on the presence of various barriers. Attention is focussed upon terrestrial barriers, which impede communication, such as lakes, forests, difficult terrain, and the geographical distance separating two potential communicants (the latter is termed the neighbourhood effect). However, since the work of Karlson (1958) and Duncan (1957) suggests that social barriers are functionally similar to terrestrial barriers, it is not unreasonable to consider social barriers as a part of the conceptual model.

Diffusion patterns are also mediated through a system of urban centres (central places - see Christaller 1950) in any given area, 'where diffusion is primarily
dependent on individuals in one central place communicating with those in another, which is the kind of phenomenon we have already seen illustrated in map 3. A time dimension can also be added to these studies by comparing maps of the same area at different points of time. A comparison, for example, of map 4 with map 5 is very revealing in this respect. The innovation can be seen spreading from a centre to surrounding areas, and then jumping to other members of the central place hierarchy at a greater distance (as also in map 3). In linguistic studies the time dimension can be added by investigations in apparent time of the type carried out by Labov (1966).

Now, it is only right to concede that dialect geographers have of course been able to explain some linguistic phenomena in the same kind of way as geographers. It has sometimes been possible to show that isoglosses correlate with terrestrial or political barriers. And central places have been recognized in dialect theory as the source of focal areas (see Moser 1954). However, although dialectologists have often been able to point to where certain innovations have started, they have not always been able to explain why these particular innovations, rather than those originating elsewhere, have been successful, nor why these innovations have stopped where they have. The exact location of isoglosses, and their exact configuration, is often unexplained. Geographers, on the other hand, have developed techniques for the fuller and more accurate description of the spatial distribution of phenomena which are of considerable value in achieving an understanding of diffusion processes, and which may be of some significance for linguists (see Brown 1968, for references). However, we have also to concede that there may be important differences between technical innovations (like motor-cars) and linguistic innovations which mean that the approaches cannot be identical in both cases. Linguistic change is a much more subconscious process, usually, than the adoption of a technical innovation, and is as yet very badly understood. It is also much harder to explain how and why linguistic innovations begin in the first place. This means that the linguistic geographer may be presented with rather more difficulties than the social geographer. But does it also mean that linguistic descriptions of this type are not possible? We report now on research carried out in conjunction with Arne Kjell Foldvik of the University of Trondheim into linguistic change in Norwegian. This work suggests, as does Jernudd & Willingson (1968), that difficulties of this type should not prove to be an obstacle to obtaining full descriptions of linguistic data similar to those exemplified in the work of Hägerstrand.

3. Description – the Norwegian Study
Our Norwegian research has been carried out in Brunlanes, a small rural peninsula near Larvik on the south coast of Norway (see map 3). It is an ideal area for the study of the diffusion of linguistic innovations: it is cut off on the west, south and east by the sea, while the northern area is for the most part uninhabited and without roads. Brunlanes is dominated by Larvik, a town of about 10,000 inhabitants, at its north-eastern corner, and all or nearly all land communications from Brunlanes lie through this town. Stavern, a town of 2,000 people, stands at its south-eastern corner, and two villages, Nevlingham (locally Hamna, 'the harbour'), and Helgeroa, at the south-west and north-west corners respectively. There are two metalled roads from Larvik towards Nevlingham, one direct and one, not yet completely metalled, via Stavern along the south coast. Apart from the two villages, the population of Brunlanes is distributed in farmsteads relatively evenly scattered across the countryside.

We have been particularly concerned with linguistic change in this area, and especially with the diffusion of non-standard Larvik speech into the surrounding rural areas. One development of this type involves a phonetic change in the vowel [æ]. Eastern varieties of Norwegian have a basically nine vowel system, all of which occur short and long.

\[
\begin{align*}
[y] & \quad [i] & \quad [u] & \quad [u] \\
[æ] & \quad [e] & \quad [o] & \quad [o] \\
[em] & \quad [o]
\end{align*}
\]
There are, in addition, three common diphthongs: /æi/, /æu/, and /aʊ/. The status of /æi/ is rather marginal compared to that of other elements in the system since in most cases it can be regarded as a realization of underlying /eɪ/ before /fr/ where no morpheme boundary intervenes (see Fretheim 1970). It is, however, involved in surface contrasts in the accents under investigation here, and phonetic change of /æi/ appears to be closely linked, as a related change in phonetic space, to a similar change of /aʊ/. In much of the south-east of Norway, particularly in the Oslo area, back variants of /aʊ/ appear to be on the increase and to occur with lower and backer variants of /æi/. Poppwell (1963) gives [e] and [a] as typical educated Oslo pronunciations of /æi/ and /aʊ/, but the anti-clockwise movement of vowels that has affected Norwegian and Swedish accents for a considerable period of time appears still to be under way in the case of these two vowels, and preliminary research in Brunlanes showed that while older speakers tended to have [e] as a realization of /æi/, younger speakers were more likely to have [a] or even [e].

In Brunlanes, /æi/ occurs, as in educated Oslo speech, in:

(a) items with /ei/ + /r/:
   * her / her/ 'here'

(b) reduced forms of pronouns with /ei/:
   * jeg, jeg ei > jeg i 'I'

(c) a few other items
   * døm /dœm/ 'the devil'

It also occurs in:

(d) items with /ei/ + /l/ or /ei/ + /r/:
   * fordlig /fœrdil/ 'fished'

(e) items which have /æu/ in educated Oslo pronunciation, which tend to have /æu/ in Brunlanes
   * sau /suæ/ 'sheep'

(It would probably also be legitimate to consider the first elements of the diphthongs /æi/ and /æu/, where it does occur, as examples of /æi/ since they too appear to be involved in the same phonetic change. For the moment, however, these have been excluded.)

(f) plurals of masculine nouns, and certain other items with -er endings.
   * gutt /gut/ 'boy'
   * gutter /gutær/ 'boys'
   * cf. educated Oslo /gutter/

We have examined only instances of stressed /æi/, so the majority of examples come under headings (a) and (d). Other things being equal, (d) variants tend to be more open than (a) variants. This has not been taken into consideration in our calculations since we have analysed a sufficiently high number of vowels for any skewing effect to be cancelled out.

We now believe we have sufficient information from this study to suggest, albeit somewhat modestly, that it is possible to use techniques similar to those used by geographers for the description of linguistic data. An added bonus is that these techniques, together with the use of the linguistic variable, provide a very useful way of dealing with linguistically and geographically gradient phenomena. (Traditional dialectological techniques do permit the cartographical representation of isoglosses separating, say, pail areas from bucket areas. It is an altogether different matter, however, to portray a gradual phonetic change from [e] to [a].) Moreover, once we have developed techniques for handling geographically gradient phenomena of this type, we can then be more honest about lexical differences such as pail and bucket and recognize that even in cases like this the transition from one area to another is usually a gradual one, and that in any case the difference between the two areas is more or less than either or the result of dynamic linguistic, social and geographical processes that should, where possible, be described in a more dynamic manner.)

The methodology adopted in Brunlanes was, first of all, to cover the area under investigation with a hexagon grid (see map 6), and then randomly to select one named locality in each cell and record some of the population at each locality. (There is little point in constructing a random sample for the linguistic study of farmstead clusters.) Interviews were carried out in the form of tape-recorded unstructured small group interaction sessions. These were mostly in fact small spontaneous coffee parties, and in nearly all cases casual speech, as characterized by Labov (1966), was obtained throughout. Analysis has now been carried out on the speech of almost 40 informants, and several thousand examples of /æi/ have been recorded. The patterns that have emerged from the analysis, moreover, are clear enough for us to be able to claim that they are worthy of presentation. Informants are of both sexes. Social class has not been taken into consideration, but the informants form a relatively homogeneous group, most of them being from farming families.

In our study of the geographical distribution of variants of /æi/ we have set up (æ) as a linguistic variable, in the manner of Labov (1966), with the following value scale:

<table>
<thead>
<tr>
<th>æ</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>æ</td>
<td>[e]</td>
<td>[æ]</td>
<td>[a]</td>
<td>[e]</td>
<td>[a]</td>
</tr>
</tbody>
</table>

Indices are calculated in such a way as to give scores of 000 for consistent (æ) - 1.
usage, 400 for consistent (æ) – 3. It is then possible to calculate individual scores for (æ) for each informant, and then work out average scores for each cell, such as Labov and others have done for social class (and other) cells. Figure 1 gives the scores for many of the cells investigated: the profiles correspond to the two dotted lines shown on map 6. (Scores for Larvik have also been included for the sake of comparison, although these are based on tape-recordings of 'anonymous observations' (Labov 1972) in the town and on interviews with people known to us rather than with a sample of informants. The scores are supported by descriptions provided by Steinsholt, 1964; 1972.)

Figure 1 suggests very strongly that, if a linguistic change is taking place in Brunlanes, it takes the form of influence from Larvik, where the average pronunciation seems to be around [æη], spreading to neighboring areas (the neighborhood effect), but also jumping to Nevunghamn, from where in turn open vowels are spreading out into the surrounding areas. (Nevunghamn is no more than a village (pop. 450) by, say, 13 km approx., from Larvik.)

We suspect, then, that a linguistic change is taking place in Brunlanes in the case of the vowel (æ). We can confirm that this is indeed the case by making a study of the pronunciation of this vowel in apparent time. The way we propose to present the data from this study is, as suggested above, to construct maps like those presented by Hagerstrand and other geographers – such as maps 4 and 5 – which we suggested were what dialect maps ought to look like. Inevitably, in view of the fact that we have so far investigated only one phonetic feature in a rather small area, our maps are more suggestive than anything else. Their main purpose is to demonstrate that this kind of work with linguistic data is both possible and desirable. The method recognizes that we are dealing, as with most linguistic features, with language as a dynamic phenomenon. We are dealing here with temporal, geographical, social and linguistic continua and, as Hagerstrand has said, 'the spatial diffusion of ratios'. Basically the method is very simple. (For refinements and complications see Robinson & Sale 1969, chapter 7.) We have considered the (æ) index score for the locality sampled in each hexagonal cell to represent the hexagon as a whole, and selected one point in each hexagon – in this case the central point – to stand for each cell. The drawing of isoglosses then takes the form of interpolating lines (in the manner of contours) between the central points of the hexagons at distances appropriate to the average index scores of their cells. (If points x and y are mid-points of cells with average (æ) scores of, respectively, 180 and 240, and the mid-points are 60 mm apart on the map, then the (æ) 200 or (æ) – 3 isogloss will pass between them at a point which is 20 mm from x and 40 mm from y.) Map 7 shows a map constructed in this way for older Brunlanes speakers, with three 'isoglosses' or contours enclosing

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Notes:
1. Steinsholt's two books: Dialect conflict in Hedmark and Dialect conflict in Hedmark 30 years after provide an excellent and unusual example of a study of linguistic change in real time. His research plots the progress of Larvik dialect forms into the countryside to the northeast of the town during the period from the 1930s to the present.
areas with average \( [ae] \) index scores equal to or less than, respectively, 200, 220 and 240. There is a central area marked off by the \( [ae] \) 200 isogloss, where the pronunciation of \( [ae] \) amongst this age-group is on average \( [ae] \) or closer. To the west and east are areas where the vowel is more open, and in the immediate neighbourhood of Nevlinghamn, Stavern and Larvik the average pronunciation can be seen to be between \( [ae] \) and \( [ae] \). Map 8 gives similar information for middle-aged speakers, and map 9 for younger speakers. These three maps, when viewed together, provide a demonstration in apparent time of the linguistic change of this vowel, and show that this is a useful method of portraying cartographically linguistically gradient phenomena. They also illustrate very clearly the form that the spatial diffusion of this particular linguistic innovation is taking: more open vowels are spreading outwards from Larvik, Stavern and Nevlinghamn with younger speakers in these areas having a pronunciation more open than \( [ae] \) and approaching \( [ae] \). These maps also tell us something else, however. They show that the central more isolated and conservative area with closer vowels in map 7 is displaced westwards in maps 8 and 9 so that, in the case of younger speakers, it is the Helgeroa area which is most resistant to the innovation. It can also be seen, in map 9, that Nevlinghamn, while itself still receptive to innovation, has much less influence on its surrounding areas than at earlier periods. The influence of Larvik and Stavern appears to be correspondingly greater. We can
pass that these different patterns are due to changes in the Brulanes transport situation in the lifetime of the present community, and to increasing centralization in education and other spheres. Sea transport has declined in importance since the development of the motor car and metalled roads, and Nevluhhamn is therefore declined in influence and in its contacts with Larvik. We shall discuss this point further in section 5, below.

Maps 7, 8 and 9, then, represent our description of this one feature of Brulanes Norwegian. It is incomplete in some respects, but we feel able to suggest that it is a many ways superior to traditional dialect maps. It is also, to return to the second main theme of this paper, a form of description which provides much more easily for explanations. We see illustrated very clearly, for example, the jumping if the innovation from one central place to another, and the subsequent operation of the neighbourhood effect which was also portrayed, although less clearly, in map 3.

5. Explanation in geography, and the East Anglian study

There are good reasons for arguing that linguists can learn from geographers, not only how to improve their descriptions in the manner just described, but also how to improve their explanations. Hägerstrand's later work has been concerned with a study of the diffusion processes which explain the spatial patterns of particular phenomena that have already been described. Hägerstrand (1967a) has said that:

the spatial order in the adoption of innovations is very often so striking that it is tempting to try to create theoretical models which simulate the process and eventually make certain predictions achievable.

He and others have been attempting to develop models of spatial diffusion processes in order to acquire an understanding of the forces behind the spread of various phenomena in space. I want to suggest that, if dialectologists adopt the descriptive methods of geographers and sociolinguists, as we have attempted in Brulanes, they may then be in a position to attempt to develop a similar geographical diffusion model for language. Together with Afendras (1969; 1970a; 1970b) and Jermodd (1958; unpublished) I believe this to be a desirable objective. The long-term aim would be to develop a model that would help us discover what factors are involved in the diffusion of linguistic innovations, and what is their relative importance: why exactly, for instance, has the diffusion of (a) – 3 and (a) – 5 from Larvik taken the precise form shown in maps 7, 8 and 9 – why a Nevluhhamn a centre of innovation diffusion, but not Helgeros? Even if this should eventually prove to be too difficult a task, the exercise will have been very fruitful. Only by constructing a model and then discovering where its predictions do fit with the known facts will we be able to find out what factors are involved, and what is the relative significance of, say, different barriers. It is important to attempt this since at the moment we do not understand exactly what leads speakers to adopt or reject linguistic changes.

I am not, I must stress, at this stage able to make anything other than suggestions as to the form this model should eventually take. I want, however, to attempt to give some indication of the way in which a geographical diffusion model for language may be useful if dialectology is to provide more satisfactory explanations. We can take, as a first example, the gravity model, a simple model which geographers have borrowed from the physical sciences in order to investigate the interaction of two centres (as in studies of migration, for example). We can investigate the ways in which this model is and is not adequate for our purposes and, in so doing, provide some indication of the sort of steps that might be possible with a more satisfactory model.

In this section we shall first discuss gravity models with reference to empirical linguistic research carried out into the English spoken in East Anglia, since this region is in many ways less complex than the Brulanes region of Norway. Then we will attempt, in section 5, to apply the particular model we select to an explanation of the Norwegian data we discussed in section 3, above.

Suppose, first of all, we take as a phenomenon that we wish to explain: why do linguistic innovations spread to centre a from centre b and not from centre c? For example, a number of linguistic innovations now appearing in the English of Norwich, in East Anglia, appear to originate in London speech (see Trudgill 1974). Many younger speakers, for instance, now lack the distinctions /f/ /θ/ and /v/ /ð/; a well-known London phenomenon. The first thing we might like to explain here, because it appears to be relatively simple, is why do linguistic innovations spread to Norwich from London (and not, it seems, from anywhere else)? Now it is quite simple using the parameters of population and distance to develop a gravity model formula to calculate the strength of the influence of London on Norwich relative to that of other centres. We can begin with a rather simple formula sometimes employed by geographers (see Olsson 1965; and Haggett 1965: 35, for further discussion and treatment of – often serious – problems):

\[ M_{ij} = \frac{P_i P_j}{d_{ij}^2} \]

Eq. 1:

\( M = \text{interaction} \)
\( P = \text{population} \)
\( d = \text{distance} \)

This is to be interpreted as a statement to the effect that the interaction \((M)\) of a centre \(i\) and a centre \(j\) can be expressed as the population of \(i\) multiplied by the population of \(j\) divided by the square of the distance between them. If we take population in thousands and distances in miles, this gives us an index score for the interaction of London and Norwich as follows:
(The figure 480 here is, of course, purely an index score. Geographical studies are more usually concerned with producing real number answers, e.g. the number of persons migrating annually from one centre to another.) A similar calculation for Birmingham (England’s second largest city) and Norwich, on the other hand, gives an index of 0.06. This might suggest, therefore, that the linguistic influence of London on Norwich is about 13 times greater than that of Birmingham. This, however, is a serious distortion of the facts: very few, if any, linguistic innovations spread to Norwich from Birmingham. There are two reasons why the index scores are misleading in this way. First we have not taken the communications network or terrestrial barriers (if any) into consideration. (These factors also appear to be important in explaining the differential behaviour of Nelsunmann and the other centres – see below.) Secondly, there is a factor that has not been taken into account in the explanation of why the influence of language differs from that of other innovations.

In the case of language, we have to deal with particular resistance factors that are not met with in other fields. One such factor stems from the fact that in England and linguistically easiest to adopt features from those dialects or accents that most closely resemble one’s own, largely, we can assume, because the adjustments that have to be made are smaller. We must therefore take into consideration a factor we can label prior-proposing linguistic similarity. This is not necessarily a function of distance: Norwich English is probably more like that of Canterbury than that of Peterborough, for example, although this is a difficult thing to measure. We shall therefore modify equation 1 to read:

$$M_{ij} = \frac{P_i P_j}{(d_{ij})^2} \quad \varepsilon = \text{linguistic similarity}$$

where $\varepsilon$ is a variable expressing linguistic similarity. For Norwich phonology one might suggest a set of values something like the following:

$$\begin{align*}
\varepsilon &= 4 \text{ for other Norfolk varieties} \\
\varepsilon &= 3 \text{ for other East Anglian varieties} \\
\varepsilon &= 2 \text{ for other south-eastern varieties} \\
\varepsilon &= 1 \text{ for other varieties in England} \\
\varepsilon &= 0 \text{ for all others.}
\end{align*}$$

Already, then, by attempting to develop an explicit model of geographical diffusion, we have discovered (or, rather, been encouraged to consider), by reason of inadequacies in our initial formulation, the importance of an additional variable.

The formula must also be modified for another reason. At the moment it is an expression of the interaction of two centres. What we are interested in, however,
The fact that the combined Norfolk influence indices are higher than those for London in both cases suggests that there was no chance of Lowestoft, King's Lynn or other urban centres in the Norwich area becoming 'h-less' while Norwich was still h-pronouncing. Once working-class Norwich speech had become h-less, however, the theory would predict that it was only a matter of time before these centres became similarly h-less. (This last point is important, of course: we must also build a time-lag factor into our model. Norwich has in fact been h-less for the last 70 years at least. Figure 2, after Trudgill (1974), shows that /h/ is not currently involved in linguistic change in Norwich — the pattern shown is typical of Norwich variables not subject to change.) Our theory would also predict that there would be a considerable period of time, while h-deletion was spreading from Norwich to the other centres, when the degree of h-deletion in these centres would be lower than that in Norwich. Current research into the speech of teenagers in Lowestoft and King's Lynn enables us to test this hypothesis by comparison with the initial Norwich data (Trudgill 1974). In each case the sample consists of schoolchildren randomly selected from schools in the area in question. The results for h-deletion in four different contextual styles in each town are given in Table 1 and figure 3. As predicted by equation 3, h-deletion is lower in King's Lynn than in Lowestoft. In both cases, moreover, it is lower than in Norwich. However, the Lowestoft formal speech and casual speech scores are only just lower than those for Norwich. This may simply be because sufficient time has now elapsed for h-deletion to have reached Norwich-type proportions in Lowestoft. On the other hand, it may be that we also have to take into consideration a factor we have so far ignored: Lowestoft is doubtless also subject to influence from Ipswich, which has a population roughly the same size as that of Norwich. The index of influences of Ipswich on Lowestoft is 0.05, very much lower than that of Norwich, but the point is that the influence of London and Ipswich combined (0.65), together with that of other towns in the area, may have outweighed that of the Norfolk centres — assuming, as seems reasonable, that Ipswich became h-less before Norwich did. It is clear, therefore, that our model needs to be considerably more complex than the simple formula of equation 3. We have to incorporate a measure of the relative strength of influence of different centres. We must subtract from the influence of one member of the central place hierarchy another the influence of other members.

5. Explanation — the Norwegian Study

We can now attempt to incorporate this relative-strength-of-influence factor into our study by applying the model as it has so far been developed to the Norwegian data illustrated in section 3. At earlier periods, it seems, sea traffic was in some respects more important in Brunlanes than road traffic. We will therefore apply the model developed above to produce indices of the linguistic influence of the centres Larvik, Stavern, Nevlinghamn and Helgeroa on each other using distances by sea (in kilometres). We will, in addition, compute scores for one of the farmsteads that we investigated, Foldvik, which lies in the central, conservative area of map 7. (Bearing in mind that sea traffic was presumably more important than land traffic because certain types of movement by land were relatively more difficult, we shall use d¹ rather than d² in our calculations of the land distances. This reflects the fact that, at earlier periods at least, the terrain was more difficult and the population less mobile in Brunlanes than in East Anglia.)

With r set at 1, the amended formula yields the indices of linguistic influence.
shown in Table 2. This table makes it quite clear that, if the innovation of open (ə) vowels begins in Larvik, then the next place to be affected by this development will be Stavern. We can propose that, subsequent to this, a chronological development will take place as follows. Larvik and Stavern now have open vowels, and their combined influences on the other centres will be as shown in Table 3.

**Table 2. Indices of linguistic influence in Brunlanes; sea distances**

<table>
<thead>
<tr>
<th>Influence of:</th>
<th>Larvik</th>
<th>Stavern</th>
<th>Nevlanghamn</th>
<th>Helgeroa</th>
<th>Foldvik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larvik</td>
<td>10416</td>
<td>97</td>
<td>47</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Stavern</td>
<td>2083</td>
<td>27</td>
<td>11</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Nevlanghamn</td>
<td>5</td>
<td>2</td>
<td>16</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Helgeroa</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Foldvik</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3. Sea model – intermediate stages**

<table>
<thead>
<tr>
<th>Influence of Larvik and Stavern</th>
<th>Subtract influence of other centres</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevlanghamn</td>
<td>124</td>
<td>17</td>
</tr>
<tr>
<td>Helgeroa</td>
<td>38</td>
<td>16</td>
</tr>
<tr>
<td>Foldvik</td>
<td>22</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 4. Sea model – final stages**

<table>
<thead>
<tr>
<th>Influence of Larvik, Stavern and Nevlanghamn</th>
<th>Subtract influence of other centres</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevlanghamn</td>
<td>154</td>
<td>0</td>
</tr>
<tr>
<td>Helgeroa</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Foldvik</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(Computations are based on the scores shown in Table 2.) This demonstrates that Nevlanghamn will acquire open vowels next. Table 4 indicates that Helgeroa will follow, with Foldvik last.

In other words, the model predicts the following hierarchy for the diffusion of linguistic innovations in Brunlanes:

**Linguistic Change in Dialect Geography**

<table>
<thead>
<tr>
<th>Larvik</th>
<th>Stavern</th>
<th>Nevlanghamn</th>
<th>Helgeroa</th>
<th>Foldvik</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This is precisely the picture illustrated in map 7. The model has, so far, been successful. But what of maps 8 and 9? In map 8 the order of the last three centres is:

<table>
<thead>
<tr>
<th>Nevlanghamn</th>
<th>Foldvik</th>
<th>Helgeroa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

and that in map 9:

<table>
<thead>
<tr>
<th>Foldvik</th>
<th>Nevlanghamn</th>
<th>Helgeroa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Foldvik, through time, is moving up the hierarchy relative to Helgeroa, and Nevlanghamn is moving down. How can we explain this? The answer appears to lie in the switch in dominance from sea to land transport, with the advent of better roads and the motor car. (Earlier in this century Nevlanghamn and Helgeroa were important as harbours. This is not true today.) Table 5 gives index scales for linguistic influence in Brunlanes using land rather than sea distances, still employing R.

**Table 5. Indices of linguistic influence in Brunlanes; land distances**

<table>
<thead>
<tr>
<th>Influence of:</th>
<th>Larvik</th>
<th>Stavern</th>
<th>Nevlanghamn</th>
<th>Helgeroa</th>
<th>Foldvik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larvik</td>
<td>1</td>
<td>772</td>
<td>14</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Stavern</td>
<td>154</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Nevlanghamn</td>
<td>1</td>
<td>0</td>
<td>20</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Helgeroa</td>
<td>2</td>
<td>22</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foldvik</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once again it is clear that Stavern will be the first to be influenced by linguistic innovations spreading from Larvik. The next stage can be deduced from Table 6. Here we can see that, this time, the third place to be influenced will not be Nevlanghamn, as with the sea model, but Foldvik. It is important to note that, although it is actually Helgeroa which has the highest score in the left-hand column in Table 6, it is in fact Foldvik which receives most influence from Larvik and Stavern. This demonstrates the advantage of taking the competing influence.
of different centres into consideration. Table 7 shows, finally, that the next place to develop open vowels will be Helgeroa, with Nevluinhann last.

We are now, therefore, in a position to present a comparison of predictions produced by the model with actual recorded data. This is done in Table 8. This shows the % of coincidence exactly with the predictions produced by the sea-distance model. Maps 8 and 9, on the other hand, appear to represent intermediate stages on the way to the hierarchy predicted by the land-distance model. This last hierarchy continues the trend for Foldvik to rise and Nevluinhann to fall, as a result of the change-over from the dominance of sea to the dominance of land traffic. We can therefore suggest that most of the linguistic diffusion model has been relatively successful in explaining the data concerning the diffusion of the linguistic innovation shown in maps 7, 8 and 9. The model produces a perfect fit with the data obtained for the older speakers, and, while it does not coincide exactly with scores for the younger informants, it appears to predict very accurately the change in the diffusion hierarchy which is currently taking place. Studies in a few years' time will be able to show whether Helgeroa has acquired, as predicted, more open vowels than Nevluinhann.

### Table 6. Land model – intermediate stages

<table>
<thead>
<tr>
<th>Influence on:</th>
<th>Influence of Larvik and Stavern</th>
<th>Subtract Influence of other centres</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevluinhann</td>
<td>14</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>Helgeroa</td>
<td>24</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Foldvik</td>
<td>23</td>
<td>28</td>
<td>0</td>
</tr>
</tbody>
</table>

### Table 7. Land model – final stages

<table>
<thead>
<tr>
<th>Influence on:</th>
<th>Influence of Larvik, Stavern and Foldvik</th>
<th>Subtract Influence of other centres</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevluinhann</td>
<td>14</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>Helgeroa</td>
<td>34</td>
<td>20</td>
<td>14</td>
</tr>
</tbody>
</table>

### Table 8. Linguistic diffusion hierarchies predicted by the model and illustrated in the maps

<table>
<thead>
<tr>
<th>Model - sea distances</th>
<th>Map 7 – older speakers</th>
<th>Map 8 – middle aged speakers</th>
<th>Map 9 – younger speakers</th>
<th>Model – land distances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larvik</td>
<td>Larvik</td>
<td>Larvik</td>
<td>Larvik</td>
<td>Larvik</td>
</tr>
<tr>
<td>Stavern</td>
<td>Stavern</td>
<td>Stavern</td>
<td>Stavern</td>
<td>Stavern</td>
</tr>
<tr>
<td>Nevluinhann</td>
<td>Nevluinhann</td>
<td>Nevluinhann</td>
<td>Nevluinhann</td>
<td>Nevluinhann</td>
</tr>
<tr>
<td>Helgeroa</td>
<td>Helgeroa</td>
<td>Foldvik</td>
<td>Helgeroa</td>
<td>Nevluinhann</td>
</tr>
<tr>
<td>Foldvik</td>
<td>Foldvik</td>
<td>Helgeroa</td>
<td>Nevluinhann</td>
<td>Nevluinhann</td>
</tr>
</tbody>
</table>

Linguistic change in dialect geography

There are many factors other than those we have discussed which an adequate model will need to incorporate. A measure of attitudinal factors, for instance, will clearly be required. If we are fully to understand the diffusion of linguistic changes we shall require to know the extent to which a feature has prestige or, as in the case of Norwegians (Å) or (b) in East Anglia, covert prestige (Labov 1966: 108; Trudgill 1972). It is also important to know, not only the geographical location of origin of a linguistic innovation, but also which particular social group the innovation has arisen amongst. It may well be that uvular r, as an originally upper-class feature, has spread by means of mechanisms which do not apply in the case of working-class features such as /h/-deletion – it has certainly spread a lot further, and across language frontiers. In any case it seems likely that different processes might be involved at different social levels, because of different social interaction networks.

There are, too, other respects in which changes in language are rather more complex than the spread of technical innovations. Consider maps 2 and 3. Why should it be that uvular r is only partly standard in Dutch, while it is the usual standard pronunciation in French, German and Danish? One possible explanation is that we have to take the linguistic system into account as a resistance factor (dialectologists have long been aware of this type of resistance factor, of course). In Dutch there was already a uvular v or velar fricative resembling the uvular r. Adoption of the innovation might therefore have led to a loss of phonological contrast, and resistance may therefore have been stronger than in other areas. This does not imply that potential loss of phonological contrast prevents the adoption of [R]. Clearly it does not, and any case studies of sound change, notably those of Labov et al. (1974), have shown that preservation of phonological contrast is by no means the most important factor in the prevention or propagation of change. I simply wish to suggest that, other things being equal, exposure may be slowed down by factors of this type. (Daan (personal communication) also reports at least one related instance of confusion, where gril ‘caprice’ was
LINGUISTIC CHANGE IN DIALECT GEOGRAPHY

social level? A possible explanation is suggested by map 11. A comparison of maps 10 and 11 shows that the isogloss coincides to a large extent with the gap between the two most heavily urbanised areas of England. It also appears to be the case, from rough calculations, that the population of the areas of England north and south of this line are approximately equal. We can therefore perhaps explain the location of this isogloss, at this social level, in terms of the parameters of population and distance we used in the gravity model: we can explain it in terms of the balance of populations. This is as far as a London-based innovation could get before its progress petered out because the population "behind it" would no longer support the distance.

A number of problems do arise with this explanation of course. Scottish accents also have the /a:/ /a/ distinction that southern English accents have. Is this the result of a separate but almost identical innovation? Or did the London-based innovation jump to, say, Edinburgh, leaving the intervening Midlands and North unaffected? Or did the innovation perhaps start in Scotland?

A second problem is that we require an explanation for why the /a:/ /a/ isogloss has a very different configuration from the post-vocalic /a/ isogloss of map 1. In terms of the model we have been discussing we are forced to say that either (a) the innovations began at different periods of time, when population distribution was different and distance a factor with a different kind of weighting because of different transport conditions; and/or (b) they began in different places; and/or (c) there are linguistic factors to take into consideration—perhaps the loss of /a/ in certain contexts is an entirely different phenomenon from the introduction into the system of a new phonological unit /a/, and has different diffusion characteristics. Factors (a) and (b), at least, are probably valid. But whatever the true explanation may prove to be, the main point is that our discussion of diffusion models, and of explanation generally, has meant that questions of this type are now being asked. In any case, if we can, however tentatively, explain one imperfectly plotted isogloss in this way, there is some hope of developing a more sophisticated model that will explain more sophisticated data.

In conclusion we can note, as Bailey (1972) has pointed out, that there has recently been an increase in interest in language as a dynamic phenomenon. Wang and others (Wang 1969, Chen & Hsieh 1971), for example, have recently produced some work on lexical diffusion as a process, while Labov (1965, and elsewhere) has dealt with some of the processes involved in the diffusion of linguistic innovations from one social class group to another. In both these cases, as Bailey (1974) argues, the time dimension is important. The geographical diffusion of linguistic features that we have been discussing in this paper is the spatial counterpart to the other two types of process. Indeed, it constitutes both a reflection of these processes and proof that they take place. So far, however, even in "wave theory" studies inspired by Schmidt (1972), linguists have generally been interested in the results of processes of this type rather than the processes interpreted as geel 'yellow'. And a loss of contrast does appear to have occurred in certain Dutch accents.

Do geographical diffusion models have a useful future in linguistics? Map 10 shows one of the most important isoglosses in England. As far as I know, the location of the isogloss that separates those accents which have /a/ in butter, but, etc., from those which do not has never been accounted for. If our model is to be of any value, it is precisely this kind of problem it needs to be able to handle. Why is this isogloss where it is? The first point to concede is that we are once again faced with a data problem. There are very many people north of this line who do not have /a/ in these items, and we do not know who or where they are. We are also rather ignorant about the more important problem of where speakers have a phonological distinction between end and ended and where they do not. Map 10 is valid only for broad phonetic descriptions of the most conservative rural speakers. But can a diffusion model explain even the distribution at this
URBANISED AREAS IN BRITAIN 1951
(OVER 400 PERSONS PER 50 MILE)


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themselves. A dynamic dialectology, making use of time-incorporating geographical diffusion models and sociolinguistic and geographical techniques that permit the handling of gradient phenomena, may be better able to describe and even explain some of the processes involved in the geographical diffusion of linguistic innovations.

REFERENCES

On sociolinguistic research in New World Spanish: A review article

INTRODUCTION

Sociolinguistics has had a warm welcome among scholars working on New World Spanish and there is a good deal of activity going on in Latin America related to this field. We will refer to different aspects of this activity - which is not always reflected in studies reporting research - and we will discuss some sociolinguistic studies recently produced for New World Spanish in Latin America and in the United States.

Latin America, a continent where an urgent desire to attain cultural independence is deeply intermingled with concerns for political and economic liberation, social class struggle, ethnic relations, etc., can be expected to constitute a particularly rich field for any discipline which presents itself as relevant to social reality. Unfortunately, among Latin American scholars, both within and outside the field of linguistics, there undoubtedly prevails a misunderstanding (and probably an overestimation) as to the possibilities and goals of sociolinguistic studies.

What strikes one immediately is the contradiction between the rapid acceptance and popularity of sociolinguistics and the relatively small amount of original research which is carried out in these countries. This same contradiction had already taken place in the case of Generative Grammar, which came in and out of fashion without leaving behind any noticeable amount of publications within the framework. The few papers which were produced are not proportional to the potential interest this model had aroused. We suspect that we can expect this imbalance between popularity and actual practice whenever a model or an area does not arise in situ through accumulation of individual research and becomes fashionable on this basis, but rather is imported as already prestigious and made the object only of reading and criticism, while postponing research until after the imported material has been assimilated and understood.

To this situation is added what is probably a decisive fact: research, and this holds for linguistics in general, needs to be financially supported. Although this would not be sufficient, researchers at least need to be able to concentrate on their activity without having to work at jobs unrelated to their discipline. Latin American linguists are seldom able to do so and it is even rarer that there be funds available for equipment, assistants, travel expenses, etc.

In a recent article, Gabriel Bés agrees with us in this view of the actual activity in linguistics in our country and in Latin America in general:

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