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Clinical linguistics is the application of the theories, methods, and findings of linguistics (including phonetics) to the study of those situations where language handicaps are diagnosed and treated. Other terms, such as 'remedial' and 'pathological', are used alongside 'clinical', but 'clinical' has come to be the usual designation of the subject because the settings which first attracted detailed linguistic study were medical, and the context of intervention was the speech pathology clinic. In recent years, a similar kind of study has come to be carried out in non-medical settings also - most notably, in educational, social, and psychological contexts, where the concept of 'clinical' is less appropriate. In schools, after all, one usually talks of 'pupils' rather than 'patients', of 'teachers' rather than 'therapists' - though I do know of one teacher who regularly, in despair, refers to those in his care as 'patients'! As a consequence, 'remedial' is a word which is increasingly used these days, and at least one training course in speech therapy is known by the label 'remedial linguistics'.

For present purposes, there is no need to make a distinction between 'clinical' and 'remedial' linguistics, for the same philosophy and methodology characterise both. A distinction does need to be drawn, however, with the approach of many neurolinguists, who study clinical language data in order to gain insights into linguistic or neurological theory. This too might be referred to under the heading of 'clinical linguistics', but it is not the orientation I use in my work. For me, clinical linguistics is not principally a new way in to solving problems in linguistic theory, but first and foremost a branch of applied linguistics - an attempt to use linguistics to solve problems in other domains, such as speech therapy and language teaching. In my interpretation of this subject, therefore, I see the remediation of a patient's language skills as the primary goal of clinical linguistics. The aim is to devise explicitly principled methods of intervention, which can provide a basis for explaining both the successes and the failures in working with patients, and thus develop a more conscious professionalism. More specifically, the aim is to develop clinical confidence and clinical insight. Clinical confidence comes when therapists are in a position to verify the efficacy of their intervention strategies - to be able to say, in effect, that the reason for a patient's progress is due to them, and (perhaps more significantly, in these days of economic cuts) to be able to prove it to any who are sceptical. Clinical insight comes when therapists' training enables them to see a pattern in a mass of data, and to make predictions about patients' progress as they respond to these strategies.

The specific contributions clinical linguistics can make can be summarised under eight headings. First, there is the clarification of areas of confusion in the use of the traditional metalanguage of speech pathology. This is always the first step in developing a new approach to a subject. One must look critically at traditional models, and see in what respects they are found wanting. In the case of speech pathology, there is widespread dissatisfaction with the traditional nomenclature of the subject - the use of such medically inspired labels as 'aphasia' and 'dyspraxia' to apply to a wide range of disparate clinical conditions. There are over 100 clinical interpretations of 'aphasia', in the adult context, for example; and when the term is extended to children, the picture becomes still more complex and unreal. An alternative to the tradition of 'labelling' is urgently needed. But this will not come from the field of medicine, which fathered so much of the early work in speech pathology. The medical model is essential as a starting point in our subject, but it can provide only a limited answer to most of the linguistic problems we face, for the simple reason that 60% of the patients we deal with do not present with a clear set of medical symptoms. In so many cases, especially in such areas as delayed language development, voice disorders, stammering, and articulation problems, the medical aetiology of the condition is unknown or unclear, and the medical model cannot help us. Several speech therapists have told me of receiving case notes from their medical colleagues which 'pass the buck' [= transfer the responsibility]: voice patients in one hospital regularly turn up at the speech therapist's clinic with notes from the ENT surgeon which say, 'Mr X - no detectable pathology - please treat'!

Faced with a patient whose language is demonstrably abnormal, and where there is no clear medical condition, what is one to do? And even in cases where there is a clear medical condition, what is one to do? For after all, to diagnose a patient's problem is not a solution to it: diagnosis is the beginning, not the end of the therapeutic process. The speech therapist still needs to devise linguistic procedures to work with, and these must come from a consideration of the nature of the problem in its own terms. This therefore leads to the second area of clinical linguistic enquiry: the systematic description of the patient's linguistic behaviour, of the therapist's own linguistic behaviour, and of the interaction between them. Here, the important point is to appreciate that, in the field of language handicap, the linguistic description which must be made involves both patient and therapist equally. Language handicap is, essentially, an interactive phenomenon. It does not have some kind of independent existence - as if language delay, or an articulation

disorder, resided 'in' the patient, and could be observed from afar, as one might watch someone with only one leg. Language handicap is quite unlike most other forms of handicap in this respect. There is no way of knowing whether the last person you passed in the street has a language handicap or not. Apart from the case of those patients who use instrumental communication aids, language handicap does not show. The only way you know that someone has a handicap in this area is - to talk to them. Then, whether the problem is one of production, comprehension, voice, fluency, or whatever, it will become apparent. Without this interaction, you will never know. Thus, in order to identify a language handicap, the characteristics of the way therapists talk to patients turns out to be of particular significance. It might even be argued that the way in which we talk to patients crucially affects their diagnosis. The kind of questions we put to them, when we test them, or simply converse with them, determines the kind of linguistic inadequacies they present to us. If we test for pronouns, let us say, and find them missing, we say we have a pronoun-deficient patient; if we test for plosives, and find them missing, we say we have a plosive-deficient patient. It is easy to see how a distorted picture can emerge, unless we take into account our language, alongside the patient's, in our initial descriptive study.

It is at this point that I can address the title of my paper, for we are here at one of the crucial focussing points, as we move from past, to present, to future in clinical linguistic work. The traditional nomenclature I initially referred to is certainly a product of our past, and one about which there is presently a great deal of concern. Terminology projects have been established in many parts of Europe, to try to rationalise and standardise speech pathology terms. But such projects have no future, because the basic descriptive research (symptomatological research, if you will) has not been done. Abstract definitions of the meaning of terms are of no help, faced with the vast range of conflicting symptoms which our patients present. Only once we have provided clear descriptive pictures, using profiles and tests, will we be able to see the similarities between patients, and thus arrive at more satisfactory labels for types of disorder. Terminology projects which try to proceed without a foundation of descriptive research are doomed to failure, and dictionaries of speech pathology will continue to be considered simplistic and premature.

There is, however, a promising future in my second aim, linguistic description. This is an area which has a very short past history, and where present activities are controversial. The reason for this is the lack of appropriate apparatus to obtain satisfactory descriptions in the first place.

It is easy enough to say that we should systematically describe a patient's language; much less easy to decide how to go about it, to ensure that all aspects of the language are considered - which must include the many aspects of phonology (segmental as well as non-segmental), morphology and syntax, vocabulary, and other aspects of semantics, and the pragmatic factors involved in language use. Indeed, when I put it like this, I can immediately generalise and say that no patient, to my knowledge, has yet had a comprehensive description of his language symptoms published - and this is an unfortunate situation, which contrasts unfavourably with the meticulous clinical descriptions which have long been available in the medical field. There have been many fragments published, of course - in my own work, for example, along with various colleagues, we have published detailed descriptions of aspects of a patient's language; but we are only now in a position to try to bring these various fragments together. I am currently directing a Medical Research Council project in Britain in which, for the first time, a range of patients is being described in a comprehensive manner, from a linguistic point of view. We shall then be able to synthesise some of the findings on grammatical disability with phonological disability and semantic disability, and, hopefully, arrive at a set of linguistically-definable syndromes. At the very least, it will be possible to provide some elementary quantitative data concerning the relationship between sounds, grammar, and vocabulary in patients' language. (I mean the word 'elementary', incidentally: we are still ignorant of many basic features of patient language - such as, for example, the frequency of word types and tokens in clinical sessions. Just how many words does a patient say in half an hour, when engaged in general conversation? How many words do you say? There are undoubtedly important ratios here, which have yet to be established.)

The reason why this is future, and not past research is that for the past twenty years those few clinical linguists and linguistically aware speech pathologists which exist have had to spend their time devising the apparatus to enable the descriptions to be carried out in the first place. I would have loved to get on with the task of syndrome hunting twenty years ago, when I first became involved in this field, but it proved impossible, because there were no clinically-oriented linguistic models available to use. The main task thus proved to be one of model devising, and the result was the various devices which we refer to as 'linguistic profiles'. The earliest profile appeared in 1976, and is known by the acronym LARSP (= the Language Assessment Remediation and Screening Procedure - a misnomer, actually, for only grammar is handled by this profile; but we wished to avoid the unfortunate overtones of having the acronym GRARSP, which would sound like 'grasp' in English. We did not want to have our

our patients 'grarsped'!) A little later, we produced profiles for segmental phonology, known as PROPH (= Profile in Phonology), non-segmental phonology, mainly intonation, known as PROP (= Prosody Profile), lexical semantics, known as PRISM-L (= Profile in Semantics - Lexical), and grammatical semantics, known as PRISM-G (= Profile in Semantics - Grammatical), and these are the ones which are being used in our current research. But the innumerable theoretical and methodological decisions which we had to make in devising these profiles were not without controversy - a point which becomes increasingly apparent as other procedures come to be devised. It is always easier to see the strengths and weaknesses of a clinical procedure when you have something to compare it with - indeed, this is how I began myself - and as in recent years several new procedures have been published, especially in grammar and segmental phonology, there is considerable fuel for argument. This is a necessary and desirable development, to avoid theoretical complacency, but it has to be carefully watched, for it is easy for a subject to lose its sense of direction, and become bogged down in methodological issues. It would be a shame if clinical conferences stopped talking about patients and began talking only about problems of sampling and statistical analysis. There needs to be a balance in all things.

Similar issues arise in relation to the third, fourth, and fifth aims of clinical linguistics, which follow on from the need for systematic descriptions. The third aim is the analysis of the descriptions, in order to demonstrate the extent to which patients are using their language systematically. The fourth aim, as already mentioned, is the need to classify patient linguistic behaviours, as part of the process of differential diagnosis. And the fifth aim is the assessment of these behaviours, by demonstrating their position on scales of approximation to linguistic norms. In the case of adults, patients are compared with the descriptive norms which are available for the adult language. In the case of children, the relevant comparison is the descriptive research in normal child language acquisition. Here, too, we have an issue of past, present, and future. The past twenty years has seen an enormous amount of research undertaken into both these areas - at least, in relation to English. In May, for example, we see the publication of the largest grammar of the English language ever to appear, A Comprehensive Grammar of the English Language, by Randolph Quirk and his colleagues. And one has only to pick up an issue of the Journal of Child Language to see the way that field has developed. It is thus possible, at least for English, to make systematic comparisons for many areas of adult and child phonology, grammar and semantics -

and in view of the current linguistic interest in pragmatics, clinical assessments in that area are also now beginning to be made, especially in the USA. This interest is ongoing, and productive; but what of the future? I keep saying, 'at least for English'. The biggest problem hindering the development of comparable clinical linguistic procedures for Spanish is the limited amount of research into Spanish language acquisition which has so far taken place. Without a detailed account of acquisitional norms, I do not know how one makes the kind of systematic assessments which we need. The conventional use of tests of articulation, grammar, and vocabulary is of course a start, but a test is no replacement for a full assessment of a patient's language. A test, after all, is an extremely selective instrument, designed to be administered in a short period of time. Most articulation tests, for example, elicit information about consonants, and ignore vowels - but vowels are just as much a feature of phonological handicap as are consonants. Most grammar tests look at morphology (certain word-endings, in particular) and ignore syntax. Most tests of vocabulary look at individual lexical items, and ignore the way in which words define each other. Profiles, by contrast, aim to be far more comprehensive, in their coverage of linguistic topics. They are not tests: their role is to provide a qualitative impression of linguistic behaviour, to supplement the quantitative scores arrived at through testing. But without acquisitional information to grade the sounds and structures of language, profile work is without foundation. We have from time to time published items on Spanish language acquisition in the Journal of Child Language, but my impression is that a great deal remains to be done. If this impression is correct, this is a priority area for Spanish clinical linguistics in the future.

The sixth, seventh, and eighth aims of clinical linguistics can be briefly stated. Sixthly, we have, on the basis of an assessment, the formulation of hypotheses for the remediation of the patient's abnormal linguistic behaviour. Seventhly, we need to evaluate the outcome of these hypotheses, as teaching proceeds. And eighthly, we need to evaluate the remedial strategies used in the intervention, insofar as linguistic variables are involved. At last, then, we are in contact with the 'real' world of clinic or classroom. This is the world of daily speech pathology. But please note how long it has taken to reach it, and the complex foundation of activity which clinical work presupposes. This can be seen if I put these aims in reverse order. Remediation presupposes assessment, which presupposes analysis, which presupposes description. Without an adequate description, therapists cannot guarantee the objective basis of their work. This is not of course to deny the value of the intuitive approach of the experienced therapist, but if this approach on occasion does not work, or

if therapists want to be able to explain the basis of their successes and failures, the need for systematic description and analysis becomes paramount, as a foundation of enquiry.

What does the future hold in this area? The most important task is the systematic study of those strategies which therapists believe are efficacious in promoting language development. It does not take long for therapists to learn that some procedures 'work'. The question is: Why do they work? And why, on occasion, do they not work so well, or not at all? There are so many variables which interfere with a simple statement of cause - such as the personality of the therapist and patient, their rapport, and the intrinsic interest (or boredom) of the materials being used. Clinical linguistics cannot do anything about such matters, but one thing it can do, and that is to study the actual progress of a clinical interaction, to determine the linguistic rules and tendencies which both patient and therapist follow. Some therapists, for example, regularly praise a patient who has carried out an activity (e.g. Therapist: 'What can you see in the picture?' Patient: 'A car'. Therapist: 'Good boy!'). Others do not. Others try to build on what the patient has said in some way (e.g. 'It's a big car, isn't it'). There are many possible ways of reacting to what the patient has said, and also many possible ways of stimulating the patient to speak (open-ended questions, specific questions, requests to imitate, commands, instructions to pay attention, prompts, and so on). In language acquisition, many of these strategies have been studied for some years, in the context of parent-child interaction, or 'motherese'. There is room for a corresponding subject of 'therapese', and I hope to see it develop over the next few years.

Which leads to my final point about the future. So far, linguistic studies of language handicap have begun to provide us with synchronic descriptions of patient behaviour, as outlined above. But a synchronic account of a sample of disordered language is only a part of the characterisation of a language handicap. To describe a patient's language on a certain day gives us only a baseline in terms of which it will become possible to measure the nature of the handicap as it progresses. We have taken, as it were, a snapshot of the problem. The language is there, on tape or on the page, but frozen. The only difference between it and an anatomical specimen in a medical laboratory is that language does not have to be kept in formaldehyde. The reality of language handicap cannot be captured in this way. A language handicap is quintessentially a diachronic phenomenon - the result of a failure of language to change over time in the normal way. The fact of change is central to our

understanding of the condition, and until we take this fact into account, by monitoring it, and building it into our model of handicap, answers to our questions about diagnosis, remediation, and the efficacy of teaching, will remain elusive. It is, accordingly, absolutely essential to produce longitudinal accounts of language handicaps - to take regular samples of the patient's language, and carry out the same kind of linguistic analysis on each sample, thus constructing a 'learning curve' for the patient. Only this will give us the information we need to know about the efficacy of therapy. In a language delayed child, for instance, if there is a period of 6 months between samples, has the patient made six months progress in that time (i.e. he is 'holding his own', but not catching up)? Or has he made only 3 months progress in that time (i.e. he is falling further behind)? Or has he actually made 9 months progress - in other words, caught up somewhat? And if the latter, has the catching up been in all areas of language, or only in certain areas, which the therapist has been working on? All therapists will write up their intuitive impressions of their patients' progress in case notes, of course; but intuitive impressions are not enough, if the field of speech pathology is to be placed on a solid, scientific footing, and to become comparable to medicine in the confidence with which it makes its diagnoses and prognoses. Great strides have already been made in linguistic diagnosis; but the field of linguistic prognosis is in its infancy. One day, we must be in a position to answer the one question, from a linguistic point of view, which all our patients' parents and relatives urgently want to know, 'Will the patient get better?' All other issues, such as the time it takes to do clinical linguistic description and analysis, pale in significance beside this one. We need to be able to answer this question, fairly and squarely, and at present, we can only flounder, as we grope for some sympathetic words. I therefore find I cannot summarise the future aims of clinical linguistic research any more succinctly than this: it is to provide a precise, confident, professional answer to that question. Only when we have done this, and not before, can we relax.