

## Clinical linguistics: Conversational reflections

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### Abstract

This is a report of the main points I made in an informal “conversation” with Paul Fletcher and the audience at the 14th ICPLA conference in Cork. The observations arose randomly, as part of an unstructured 1-h Q&A, so they do not provide a systematic account of the subject, but simply reflect the issues which were raised by the conference participants during that time.

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### The Domain of Clinical Linguistics

When a new branch of linguistics comes along, a distinction between “pure” and “applied” usually takes a while to emerge. Sociolinguistics had been in existence for quite some time before collections of papers under the heading of “applied sociolinguistics” began to appear (Trudgill, 1984). It was the same with psycholinguistics, with the journal *Applied Psycholinguistics* beginning publication in 1980. Clinical linguistics began in a rather different way, with the applied dimension the primary motivation for the subject, arising chiefly from the demand for help in language diagnosis, assessment and treatment/teaching coming from speech and language clinicians. It was from the outset a branch of applied linguistics. Thirty years on, the applied dimension is still the dominant element, but a distinction between this and a “pure” dimension of study is now clearer and likely to prove fruitful.

The aim of clinical linguistics, conceived as a “pure” subject, is analogous to the goal of “pure” linguistics. A commonly stated aim of linguistics is to define the notion of “human language”, characterized by a set of linguistic universals. Clinical linguists, then, might aim to define the notion of “human language disorder” in a similar way. And as soon as we phrase the question thus, we see how far away we are from this goal. For, can anyone come up with a putative clinical linguistic universal? By this I mean a linguistic feature that appears in a clinical condition in all (or, at least, a significant number of) languages. At the moment, we have a good sense of what the defining linguistic features are for several language disorders as manifested in English. That has been the focus of a huge amount of descriptive study over the past 30 years. A few other languages are likewise building up their descriptive clinical linguistic identities. But where are the studies

which compare the clinical linguistic features of, say, types of adult aphasia, in English, French, Arabic, Chinese and so on? Do the same features appear?

We are at the very beginning of this kind of comparative clinical linguistics. I am not even sure how many clinical linguists yet think of the subject in this way. We are readier to think in terms of universals at the phonetic articulatory end of the linguistic spectrum. We expect, for example, similar phonetic disturbances to manifest themselves in cleft palate speech, regardless of the language being learned. But where are the studies that provide the evidence for our impressions? Or the counter-evidence? And to what extent might we need to refine our notion of deviance as we move from language to language? For example, does the parameter of excessive nasalization operate in the same way in a language which uses a lot of nasal consonants and vowels (such as Portuguese)? It is relatively easy (I stress the “relatively”) to investigate questions of this kind in articulatory phonetics. It is not so obvious how to proceed in identifying universals in relation to phonological, grammatical, semantic and pragmatic disorders – to name just the main levels of linguistic enquiry.

We seem to be still at an anecdotal stage. I have seen a few comparative illustrations of disorders across languages – showing side by side data from, say, French and English fluent aphasia. I have used this approach myself (Crystal, 1987/2010, Ch. 46). But the examples are typically short and selective, and rarely do we see the author illustrating from more than two languages. The obvious way forward is to construct a methodology in which clinical linguists from a range of language backgrounds use the same descriptive procedure to process samples of data relating to particular disorders from their individual languages. We can then step back and, in a metalinguistic way, compare and evaluate the outcomes.

### **Towards a Comparative Clinical Linguistics**

Thanks to an initiative by Martin Ball, we now have available an example of what I now see to be an emerging comparative clinical linguistics. The concept was to establish how the LARSP chart was being used in languages other than English, with the intention of publishing an anthology of accounts from as many languages as could be found. We were aware that some clinical linguists had begun to adapt the chart to other languages, but we had no clear idea of how many there were, what adaptations they had made and what clinical insights had come from using LARSP in this way. Nor had we any clear idea about what methodological issues would emerge from such a comparative exercise. The first results of this initiative are now available (Ball, Crystal, & Fletcher, 2012), and two other volumes are planned, as it transpired that far more countries had been using LARSP than we imagined.

I had the fascinating task of compiling the index for the first volume, and this meant doing a primitive comparative exercise. Are the patterns of disability, as seen on a LARSP chart, similar across languages? I cannot yet say. From a comparative clinical linguistic point of view, the indexing exercise was only a first approximation. It was clear that some items on the chart (e.g. auxiliary verbs), and some patterns of disability, were repeatedly encountered across all the languages included, but some items (e.g. passives) were not. Why was this? It could be a real feature of the patients described. It could be a methodological matter – for not everyone used the same kind of speech sample, for instance. It could be the language which simply did not use a feature relevant for English or had features not found in English (this was most obvious in those charts which had to be developed to handle a complex morphology, such as Hebrew and Welsh). It could be the grammatical mindset of the country, representing different views about what is correct or standard (and thus what is deviant) from what we are used to in English, or a different tradition of grammatical analysis which has to be respected (as in the case of Chinese). It might simply be inexperience (for some charts were still at an early, indeed experimental stage of application in a country). And of course we cannot rule out authorial inconsistency or error. There is no LARSP



Académie to rule over such things. But for a more sophisticated comparative clinical linguistics, some sort of standardization of approach will be essential.

A multilingual perspective is a *sine qua non* of a clinical linguistics. The subject is *clinical linguistics*, not clinical *English* linguistics. Yet the majority of papers at any conference or in the issues of clinical linguistics journals are still on English only. The general point is that we need to broaden the descriptive base of our subject, with analyses relating to as many other languages as possible. We have some 6000 to choose from (but see below).

The LARSP example illustrates what happens when we apply a specific procedure to a range of languages: the procedure is adapted. This of course is how linguistics evolved in the first place. A linguistic model is developed which handles Language A (or a variety or sample of Language A) quite well, but when applied to language B (or a variety or sample of Language B), it turns out to need modification. Over the years, the same or similar samples of data have been explored from many theoretical standpoints, and this is how we develop a sense of the strengths and weaknesses of individual models. Little of this seems to have taken place in clinical linguistics. Conference papers often go like this: here is my model; here is some clinical data; look how my model describes the data; now go and do likewise. The end. But this is actually only the beginning. To what extent have other models been used to describe the same set of data? If they were used, what similarities and differences would ensue? We are at the very beginning of this phase of inquiry.

It would be really interesting to see how our understanding of language disorder would be increased if a comparative exercise of this kind were carried out. Might a special issue of CL&P be devoted to a multiple description and analysis of a topic in this way? I say “description and analysis” deliberately: the aim is not just to describe the sample but to point out what features of the disorder are highlighted or underemphasized or missed by the description. The description generates a set of hypotheses about the disorder, which then need to be tested against further samples of data. A specific example which was raised during my conversation was prosody.

### Comparing Approaches to Prosody

Prosody is still remarkably neglected, at a descriptive level. A great deal of lip-service is paid to its importance, and several papers have now been written asserting and illustrating its importance, notably a special number of the *International Journal of Speech-Language Pathology* (11:4) in 2009. But when it comes to the routine presentation of examples, it's still unusual to see a full prosodic transcription, or often any prosodic transcription at all. I am not just talking about prosodic disorders: I mean a prosodic perspective for grammar, pragmatics, conversational analysis and so on. Personally, I cannot see how one can draw any confident conclusions about interaction without taking into account the prosodic features used by the participants. And this means more than just identifying one or two of the most easily noticeable features. Discussing the point with various people at the conference, and listening to comments made in this connection, it seems that not all teaching institutions pay as much attention to the teaching of prosody as they should do, and some of the models of prosody are evidently off-putting. Even the IPA has a very limited apparatus for handling the full range of prosodic and paralinguistic features (in the sense of Crystal & Quirk (1964) and Crystal (1969)) that comprise the field of nonsegmental phonology, and there was some discussion of desirable prosodic extensions to the IPA at the conference. But an essential step would be to test the strengths and weaknesses of the various nonsegmental models available by applying them to the description of a sample of data, remembering what the ultimate aim of a transcription is.

A transcription exists to make the original recording redundant: that is, it represents the features of the original in such a way that anyone skilled in the transcription could read it aloud to produce an isomorphic result. A nonsegmental transcription which, for example, ignored the speeding up or



increasing loudness of an utterance would not replicate the original in this way, even though it might represent its tone unit structure very well. Conversely, a transcription which paid close attention to tempo and loudness would be inadequate if it failed to mark tone unit structure. The only way to answer one of the questions asked during my conversation, about making a choice between different prosodic approaches, is to try them all out and see what each illuminates and what each hides.

It might be better for such an exercise to be done online (see further below). When in the 1960s I was working on the nonsegmental transcription for the Survey of English Usage, it was routine practice for each passage to be listened to by two people, and for differences in transcription to be resolved by discussion, or sometimes by involving a third listener. I am not sure how much of this reliability checking goes on in clinical linguistics. We are a trusting people, and tend to take the transcriptions we read in papers for granted. We assume that they are accurate. But I never trust any transcription where the author does not at some point draw attention to points of encountered uncertainty, as I have never encountered a speech passage where I have not myself experienced such uncertainty. The value of online presentations, of course, is that the original sample of data can be heard alongside the transcription, immediately increasing the confidence with which we view the results, and allowing errors to be more easily corrected.

### Neglected Areas

Our goal of a clinical linguistic descriptive adequacy is still a long way off. The way clinical linguistics is evolving very much reflects the way linguistics did as a whole. When I compiled the index to the first 15 issues of *Clinical Linguistics & Phonetics* (Crystal, 2002), I found that nearly 70% of the articles related to phonetics and phonology, about 10% to grammar, with semantics and pragmatics showing a miserable 2.5% each. A similar imbalance could be seen in the papers at the 14th conference: a lot of phonetics, phonology and grammar, with semantics, pragmatics and other domains lagging a long way behind.

I do not know what it is about semantics that puts clinical linguists off. In the years after producing the range of profiles represented in *Profiling Linguistic Disability*, I had full-size copies of each chart made for sale. LARSP charts sold like hot cakes, and the phonological chart also, though perhaps more like lukewarm cakes. But the two semantics charts were, essentially, freezing cold. I had requests for a few dozen, in all, until the book went out of print and I stopped the exercise. (Today, the charts are all available for free online, thanks to Tom Klee and Christchurch University Library – see the links at <http://www.ucl.ac.uk/~mjb0372/html/larsp.html>.) And yet, whenever I worked with clinicians or teachers using the semantics charts as a guideline, they were hailed as far more useful, and much easier to use (because of the minimal analytical apparatus), than LARSP – and I agreed. But leaving aside my own particular approach, the general point is that the vocabulary of patients is still little studied from a semantic point of view, even though we know that, when it comes to language learning, vocabulary is the Everest, simply because of the number of items involved and the ways in which they interact (Crystal, 1998). I always found structural semantics, with its emphasis on semantic fields, sense relations (hyponymy, antonymy and so on), and the central role played by definition in clinical interaction to be invaluable, along with the developmental semantic perspective from child language lexical studies.

A pragmatic perspective is still only patchily seen. By this I am not referring to patients with a pragmatic problem. I mean the routine analysis of text, spoken or written, from a pragmatic point of view. I believe that pragmatics has the greatest potential to offer our subject, because it aims to answer a question that no other level of linguistics asks, and which is central to our concerns. If you will forgive the simplification, in order to make my point, descriptive linguistics answers the “what” questions we have of utterances; historical linguistics the “when”; sociolinguistics the “who” and the “where”; psycholinguistics and neurolinguistics the “how”; and pragmatics the



“why”. I look to pragmatics for explanations. My definition of pragmatics, I should say at this point is: the study of the choices we make when we use language, of the intentions behind those choices and of the effects that those choices convey. I miss this perspective in the study of clinical interaction, where the focus is still very much on the what (transcription, description) and very little on the why. Why would a patient/pupil use a particular tone of voice, or word, or grammatical construction? The fact that the therapist/teacher or the patient/pupil asks a question can be dutifully recorded on a chart. But why did the therapist/teacher or patient/pupil ask that question, and why give that response? There are many possible reasons, which it is the business of pragmatics to explicate.

### Current Trends

There was also some discussion, in the conversation at the 14th Conference, about the need for clinical linguists to be aware, at a professional level, of what is happening to language, and languages, in non-clinical domains. Elsewhere, I have argued that three trends have dominated language change since 1990 (Crystal, 2004), and each has implications for the way clinical linguists work.

The first trend relates specifically to English (though similar issues affect any language with an international presence). The character of English is changing, as a result of English becoming a global language. New varieties (“new Englishes”) are rapidly evolving in many countries, and the linguistic features defining these varieties are often different from those characteristic of British or American standard English, as traditionally understood. How to manage these new perspectives is a challenge for the English Language Teaching profession as well as for clinical linguistics. Syllable-timed speech, for example, is a major feature of most of these new English-speaking areas, as illustrated by Caribbean, South African and Indian English. Whereas once upon a time a syllable-timed articulation of English would have been seen as deviant, and measures taken to correct it, now we have to adopt a sociolinguistic perspective, and assess the extent to which the speaker is a member of a speech community for whom this kind of rhythm is normal. Similarly, a grammatical usage traditionally considered an error in British or American standard English, might now be unexceptional, such as a present progressive with cognitive verbs (*I’m knowing, I’m remembering*; cf. Macdonald’s *I’m lovin’ it*), or the use of an invariable tag question (*innit?, right?*). I am not sure if language change, as a teaching topic, is routine in clinical training, but it needs to be.

The arrival of electronically mediated communication, and specifically the Internet, changes everything, especially when working with younger patients/pupils. Anyone born since 1991, when the World Wide Web arrived, is in effect a native-speaker of the Internet, in a way that older people are not. There is a huge difference of mindset. For the older person, the printed page (books, newspapers, etc.) is central, and the screen is marginal. For the younger person, the screen is central, and the printed page is marginal. Clinical linguistics, I suspect, as in much educational linguistics, still has a traditional graphic focus; but this is increasingly irrelevant when working with youngsters with written language disorders, who wish to be as cool as their peers, and who have the same obsession with text-messaging, Facebook and so forth, as they do. How much of this kind of perspective is now in clinics I do not know. But I see no sign of it in data samples. And the point is that the kind of language encountered in electronically mediated communication is different in many ways from that encountered offline. I have developed this point at length elsewhere (Crystal, 2011a), but points like the lack of simultaneous feedback in electronic interaction, the opportunity to work with several windows at once, the use of hypertext links, the animated character of online text and the availability of cutting and pasting are all examples of the new literacies employed by the new medium, and which patients/pupils may need special help to acquire.

New kinds of text are also all around us, requiring that we rethink traditional notions such as stylistic consistency and logical coherence (Crystal, 2011b). Wiki pages, because of the way they accept contributions from anyone, typically present kinds of content and style that would be unacceptable (and perhaps even considered clinically deviant) in traditional written contexts. I recall the New Yorker cartoon showing two dogs in front of a monitor, with one saying smugly, “On the Internet, nobody knows you’re a dog”. Well, on the Internet, nobody knows whether you’re male or female, old or young, a native or non-native speaker and so on – unless you choose to reveal these details (and even then, not all revelations are trustworthy). The result is that we see on many pages mixes of standard and nonstandard English, formality and informality, British and American spelling and other kinds of anomalies which are providing a new norm against which issues of clinical literacy need to be measured. We are entering a new era of written English, in which the monitoring of public printed text by a cadre of editors, sub-editors, copy-editors and proof-readers, to ensure consistency with the received canons of standard English, is no longer in place. When we read emails, blogs, tweets, Facebook pages and so forth, we are seeing a kind of “naked” writing, presented in public printed form, that we have never seen before. Clinical linguists involved in literacy have to evaluate all of this, because it bears directly on what they count as an “error”.

And “we ain’t seen nothin’ yet”, for the next big development of the Internet will be its increasing audio-ization. At the moment, the Internet is a predominantly graphic medium, but within the next decade the proportion of spoken to written language will steadily increase, and electronically mediated speech is likely to exceed electronically mediated writing by 2020. So now, all the issues to do with the analysis of speech disorders, as traditionally encountered in offline face-to-face interactions, have to be rethought in an online world. What happens to non-fluency in a Skype chat? What happens to a conversation in which the usual kinds of repair are absent, perhaps because of lag (different speeds of transmission of stimulus and response between machines) or because new strategies of discourse are present (as in a chatroom, where multiple participants are contributing simultaneously)?

Thirdly, our sense of norms can also be affected in cases where languages are endangered – a situation which affects around half the languages of the world at present. A language is dying out, it is thought, every couple of weeks, on average. For the most part, this crisis impinges little on clinical linguists, who are working with healthy languages. But for those working with endangered languages, real issues arise, as endangerment affects the use of a language in two big ways: the language loses some of its functions (e.g. no longer being used in some public situations) and the influence of the more dominant language(s) may make it lose some of its forms. Welsh is one of the success stories of the twentieth century, as far as revitalization is concerned, but the impact of its endangered status on its structure is apparent. Lexical items that an older generation would know are not known by a younger generation, who replace them with English loanwords. A distinctive feature of Welsh is its use of word-initial mutation to express various kinds of grammatical relationship: this too is diminishing in younger users. Therapists working in this language need to be aware of the new norms in order to manage diagnosis, assessment and treatment. Clinical linguists have an important role to play in describing the trends and identifying these norms.

### Specific Proposals

At the same time, as we reflect on these grand designs, we have to recognize that clinicians and clinical linguists need to get on with the job. And three issues arose in the conversation.

There is evidently still a concern over efficacy – how to demonstrate that a linguistically informed speech therapy works. Anecdotes abound, but how much formal proof is there? I always remind myself of the history of medicine, in this connection, which took such a long time before so



many of its claims for efficacy became established. We need to do no more than follow those tried and tested procedures, beginning with a precise description of linguistic symptoms arising out of case studies. And then ongoing monitoring in the form of follow-up studies. How do we know the antibiotic works? Follow the way the symptoms diminish over time. But just how many follow-up studies exist? In the clinical assessment clinic I ran at Reading, there was always a follow-up element built in, but our limited resources and the usual problems of management (we were reliant on “feeder” clinicians for our patients) meant that we could rarely follow a patient for more than one or two follow-up sessions. With language, the demonstration of efficacy requires a real long-term commitment. I recall meeting the parents of the little boy we studied in the original LARSP project a decade later, when he was in his teens. The concerns had moved on to typical teenage problems, and language was no longer a primary concern. But we have no idea how he progressed to that state, and whether all linguistic issues had been resolved (the parents hinted that the lad still had some difficulties – for example, in following a sequence of instructions).

A question was asked in the conversation about how to get case studies published. Traditionally, this was indeed difficult – though I have to say that, when I started *Child Language Teaching and Therapy*, I asked for them and got hardly any. When I asked clinicians why they had not sent in a study of their latest really interesting patient, the answer was always the same: too busy keeping up with the pressures of the job. And there were hardly any clinical linguists around in the 1970s to help. Today, we are all still too busy. But the publishing issue is no longer an issue, as online publication, with its multimedia perspective, is the obvious way forward. There needs to be a clinical linguistic website for case studies.

But we need a group to study the ethical issues first. The medical model again can act as a guide. What kinds of measures need to be in place to protect identities, especially for children, already known to be at risk online? I made the point in the conversation that, when corpus linguistics was in its infancy, excessive steps were taken to ensure that people did not object to having their words included in a corpus. Some decades later, a more relaxed approach to corpus work is evident, as codes of practice have evolved. It is our responsibility to develop a similar code of practice for clinical linguistic descriptions.

However, assuming that these issues can be resolved, the fact remains that everyone remains extremely busy, especially in a climate of economic cuts and staff reductions. The final question addressed to me in my conversation was a nicely idealistic one: what would I do to help the profession if I had a million or so to spend on it? I know exactly what I would do. I would resuscitate the idea that I first mooted in 1975, to provide the linguistic equivalent of a pathological laboratory to aid clinicians. Imagine the state of medicine if general practitioners had to carry out their own analysis of blood samples, etc. But that is the situation our clinicians are in. Following a conference on speech therapy research in July 1975, organized by the Department of Health and Social Security in the UK, I proposed just such a concept (I called it a Language Analysis Centre). It was supported by the College of Speech Therapists, and there were various meetings with the DHSS to put flesh on the idea, but it never went ahead. It was probably too soon, with the 1972 Quirk Report on Speech Therapy Services (recommending the novel idea [sic] that language be the core discipline for that profession) too recent for its recommendations to be followed up. The proposal was judged by people who, on their own admission, had no knowledge of what was involved in language analysis. They asked for detailed illustration of procedures, but in 1975 the profiling techniques were still being tested and relevant journals had not yet arrived. It was not possible to cost it accurately, and no government was going to put funds into an inchoate proposal. Things have changed now. Apart from anything else, computational facilities have made the enterprise much easier to envisage. It would be good to see a country – or, for that matter, a private institution – that appreciates the need for a speech pathology service, and is aware of the huge demands being placed upon it, take this idea further.

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