Überlegungen zur Fehleranalyse:

Vortrag von Robert Spence 04.01.1993

My topic is error analysis, which suggests that my first concern should be to define what I mean by an error. I shall therefore begin by drawing a distinction between *errors*, which result from what Chomsky would call a lack of *competence* in the foreign language, and *mistakes*, which are essentially just a kind of faulty *performance*. Errors can be expected to recur systematically, whereas mistakes are one-off phenomena. Errors are related to the *system* of the language or languages concerned, in other words to the linguistic *potential*, whereas *mistakes* are related to the actual process of *using* language. If our concern is with teaching translation, then this distinction won't actually take us very far. For one thing, we can't *see* the underlying linguistic system – the student's *competence*, if you like – directly. All we can see are actual specific instances where, in the process of translating a text, a student has got something wrong. This may be a symptom of an underlying problem with the system of the language, or it may not be. To my mind, there is only one reliable way of drawing such a distinction empirically, and that is to collect as much data as possible and hope that certain faulty uses of the target language will in fact be found to recur systematically in the corpus. These can then be tentatively identified as the *errors*, and the rest dismissed as mere *mistakes*. The task then becomes a threefold one: first of all, to describe the circumstances under which the errors occur, secondly, to postulate an underlying cause for them, and thirdly, to suggest a remedy.

In either case, whether it is errors or mistakes that are involved, the students should be encouraged to do their own correcting. In the case of mistakes, of course, all one normally needs to do is to draw the student's attention to the problem; because it was a simple mistake of performance, and not an error based on an underlying lack of competence, the student will almost invariably be able to perform the correction without the teacher's assistance. But even in the case of many errors, the student will be able to perform the correction without extra outside help. This is because a language, as a system, consists of a large number of subsystems, of which many in fact turn out to be binary: that is, there are only two options, and if one is in any given instance wrong, then the other one must automatically be right. This is a factor which, in my view, tends to blur the distinction between errors and mistakes, to the point where the distinction actually loses a good deal of its usefulness. Many students remember only that a particular distinction is important; but often they forget which way round the distinction works. They may remember from their grammar classes, for example, that there is a contrast between the simple past and the present perfect in English, but not know what the contrast actually stands for in the real world. They remember that in certain situations the present perfect is called for, and they believe that one of those situations has just arisen. They therefore choose the present perfect, whether consciously or unconsciously. In fact, it turns out to have been one the situations where a native speaker would have used the simple past. In this case, all the native speaker need do is point to the error, and the student will immediately correct it. Even if the native speaker is unable to explain to the learner why the present perfect tense was wrong at that point, and even if the student never succeeds in consciously grasping the real nature of the underlying semantic distinction, there is always the possibility of simply letting the student self-correct the error. Always, that is, until the student graduates, and becomes one of the many millions of non-native users of English worldwide who are busily

creolizing the language faster than the combined efforts of all the native speakers can keep up with. Now, from a linguistic point of view, the prospect of being able to observe the latest in the long series of creolizations that have produced the English language of today is quite tempting. One is inclined, as a linguist, to want to bellow with King Lear, "Let copulation thrive", in other words, the English language being in essence a harlot, let her be raped copiously by anyone who covets her. But this libertarian if rather sexist sentiment — in fact, it's more than just 'rather sexist', it's downright politically incorrect! — is then countered by a more sober, moralistic, and almost chauvinist feeling which arises in the breast of the native speaker. This is the vehicle that brought me, as a thinking being, into this world, and it is the only way I have of passing on my own unconscious worldview to future generations. I decide, therefore, to up the bride price and go back to correcting student errors.

Being a linguist, and one who began working with corpuses of real data long before it became fashionable, and because I find the whole issue of distinguishing between competence and performance extremely problematic from a theoretical point of view in the first place, I decide to begin by collecting and sorting real *instances* of errors. At this point the distinction between the potential and the actual, between competence and performance raises its ugly head again. How can I be sure that two instances of an error are actually instances of the *same* error, and not instances of two quite distinct errors, which just happen to look the same on the surface? This is a question which can only be answered by having recourse to a theory, because everything which lies below the surface, that is, everything which has to do with the underlying system of the language, or, to put it another way, everything which is a type and not a token, can only be observed with the help of a theory. The theory functions as a kind of optical instrument, through which I can look at the phenomena that lie beneath the surface of the language, the phenomena that are related to competence and not to performance. Because I intend to work with a theory which is a very powerful one indeed, I can for the time being leave aside the question of distinguishing between two instances of the same error and one instance each of two different errors, because I know that the theory will provide me with useful operational hypotheses whenever I need them.

In order to increase my chances of actually *finding* many instances of the same underlying error – and many instances are necessary if I'm to build up a proper scientific model of that error – I decide to collect as many versions as possible of the same target text, then to collect as many versions as possible of target texts belonging to the same text type as the text I first began with, and then finally to collect as many texts as possible in which some particular configuration of situational and semantic features occurs, a configuration which I believe may be involved in the production of the type of error I am interested in. The wider the range of variation in text type, the more I can be sure that my data is really beginning to reflect the underlying model of the lexicogrammatical system of the target language that the students have in their heads, although being a systemic functional linguist I don't believe that what they have in their heads is important anyway, since cognition is essentially a collective phenomenon that occurs not in individuals but in the social spaces between people, where it can be observed via the study of patterned human behaviour.

At this stage, two problems arise. The first is to keep track of all the peripheral data

that might later turn out to be relevant, such as the length of time the student has been learning English, whether or not he or she has spent much time in a purely English-speaking environment, whether the student's native language is German or Dutch or French or Russian, which other languages the student speaks in addition to the mother tongue and English, and so on. The second problem is one of "chunking" the texts for storage. I am essentially interested in moving from the syntagmatic to the paradigmatic, from the actual textual process or product to the underlying linguistic system, and in order to do this I need a way of representing a corpus of translational variants in two dimensions. The horizontal dimension will be the syntagmatic axis, along which I can follow the development of one particular version of the target text, whereas the vertical dimension will represent the paradigmatic axis, on which I can see how different students dealt with the same translation problem; if my corpus is extensive enough, then the information on the vertical axis will begin to approximate to the set of choices that are possible at one particular point in the text, in other words to the underlying system that is operative at that point in the text. If everything works as planned, the result will be literally a paradigm: a listing of all the variants – both the successful and the unsuccessful ones.

But the problem is that you can't always break a text into chunks of the right size. Suppose I assume that all the students will translate more or less on a sentence-by-sentence basis. Naturally I would hope that they wouldn't necessarily translate this way; and in fact many of the better ones often don't – they happily transfer information from one sentence to another, thereby often producing a target text which, to me as a native speaker, seems to be a far better token of the English text type in question than would have been possible if the source text had been translated sentence by sentence. Luckily, such students usually identify themselves fairly early on in the piece. Andreas Höllenfeuer[1], whom I consider the most talented if not exactly the most conscientious of the current crop of second-year students, has already thoroughly internalized the principle of translating generically and holistically, even if in the process he sometimes gets into some rather deep water. He translates into English the way a native speaker of English would, rephrasing almost everything and simply retelling all the information in his own words and structures, which of course makes it impossible to single out particular passages in the source text and explain the rules for converting the words and structures at that point into appropriate corresponding words and structures taken from the repertoire of the target language. The fourth-year student Matthias Deutlich is another prime example. He still has quite a few problems to overcome, but to a native speaker his translations are really a delight to read. When I first encountered his work two years ago, I was almost certain he would never make it. His work was literally riddled with errors, the whole thing being made worse by the fact that he was so incredibly keen to experiment and take risks. Obviously his experimentation and risk-taking must have paid off, because he's rapidly turning into a very good translator. One final example: the second-year student Frank Zenner recently handed in a translation which, on the basis of the raw number of orthographic, lexical and grammatical errors, should certainly have been given a failing grade. But I gave him a pass, because there was a beautiful asymmetry about his errors: they all involved local features. All the global features of the text on the other hand were perfect English: the

[1]The names of all students mentioned have been changed, to protect both the innocent and the guilty.

decisions about how much information to put into each sentence and each clause, how to use Theme-Rheme structures to signal where the text was going, and so on – on all these fronts his translation was superior to almost all the others I've seen, and yet if one were to look at any one of his sentences in isolation, one would immediately come to the conclusion that he should forget all about trying to become a translator and switch to economics or law or something while he still has a chance.

Obviously, then, chunking the students' texts into individual sentences is fraught with danger. Often, however, we need to chunk them into even shorter units, simply for lack of space in the display format. Ideally, we need the ability to quickly convert from one display format to another, sometimes displaying a hundred or more different versions of a single clause, sometimes displaying a hundred or more versions of an entire text. In this connection I am reminded of the advice Michael Halliday says he was always being given by his teacher J. R. Firth: "Get a bigger piece of paper!" Another option would be to work in three dimensions, using the horizontal dimension as before to represent the syntagmatic or structural axis within each individual clause, but this time using the vertical dimension to represent such non-structural features as cohesion: referential chains, patterns of Theme choice, conjunctive relations, and so on. The third dimension could then be used to represent the paradigmatic axis, on which we display all the different student versions as a first step to representing the underlying system with which the students appear to be working, so that we can decide whether the students' system is actually the system of the target language, or whether perhaps it is a simple mapping of the system of their native language or of the system of one of their other foreign languages onto the system of English, or whether it is perhaps an imperfect mapping, a kind of interlanguage, a system which draws some of its properties from the source language and others from the target language.

In any case, once the problems of chunking, storing and displaying the raw data have been provisionally solved, we are left with the problem of *identifying and cataloguing* the errors and/or mistakes. At present I'm working with the system which is set out in your handout. I sort the errors according to seriousness, by which I mean simply the degree of devastation the error caused in the context in which it occurred, or, to put it another way, the degree to which the error reduces the usefulness of the proposed target text as a whole. I work with three degrees of seriousness, assignment being largely on the basis of subjective factors. Three minus points means a particularly devastating effect, one minus point means that the student's choice was almost a borderline case of acceptability, but somehow just manages to end up being on the wrong side of the borderline. No distinction is made here between what are likely to be errors and what are likely to have been mere mistakes. Note the difference in the tense of the infinitives, by the way. It can be assumed that each mistake will occur only once, but that errors will occur repeatedly, hence: what are likely to have been mistakes, and what are likely to be errors.

In addition to sorting the errors and/or mistakes according to their degree of seriousness, I also sort them according to what I call their likely systemic origin. Here it is above all the genuinely system-based errors and not mere mistakes in performance that I am interested in. There are three dimensions to the sort: by stratum, by rank, and by metafunction. Both stratum and rank correspond in part to the German notion of *Ebene*; but there is an important difference. Stratum is based on the notion of level of abstraction. Working from

most concrete to most abstract, the strata used are the following: the level of graphetics or phonetics (the physical substance of the communicative act), the interlevel of graphology or phonology (the systems underlying the concrete typography or the concrete sound, and linking these to the next most abstract level), the level of lexicogrammar (the purely language-internal level of linguistic form, comprising both lexis and grammar and being in essence nothing more and nothing less than the context-neutral semantics of the language), the interlevel of context or discourse semantics (the level at which the patterns at the level of form are brought into correlation with the patterns in the situation) and finally the level of situation, understood as a complex configuration whose determining influence on the lower strata is describable in terms of Tenor (what the relations are among the participants in the situation), Field (what the participants are actually involved in doing with the help of the text in question, whether they realize it or not), and Mode (the role that the text itself is playing in the situation). The strata are related to one another by the coding relation of REALIZATION: the patterns at one level realize, represent, stand for the patterns at the next higher level. The text as a whole is a unit on the discourse-semantic or contextual stratum; the patterns of the text stand for the patterns of the situation – they allow the reader to infer what a particular portion of the world outside the text looks like. The patterns of the text are in turn realized via the patterns of the clauses, and the clauses are realized by patterns of syllables in tone groups in speaking or by graphological patterns in writing.

On each stratum a number of ranks can be identified. Here the relation at stake is not the coding relation but the relation of constituency: bigger units being composed of smaller ones, both bigger and smaller units however being at the same level of abstraction. On the phonological stratum, which we would of course only need in dealing with oral text, which I haven't yet had time to include in my corpus, the ranks are as follows: the tone group, consisting of one or more rhythmic units called feet, which in turn consist of syllables, which in turn consist of phonemes. On the lexicogrammatical stratum two perspectives are possible, the lexical and the grammatical. If we adopt the lexical perspective then we can only identify one unit, namely the lexical item. This enters, in a probabilistic kind of way, into collocations, which can be thought of as a purely formal kind of lexical pattern. Systemic linguistics differs from other kinds of linguistics in that it emphasizes the formal side of lexis, whereas other schools emphasize the semantic side of lexis. When it comes to grammar, however, systemic linguistics adopts the opposite perspective: grammar is described as semantically as possible, and is not treated as mere patterns of form.

In order to describe grammar in such a semantic way, the following ranks of units are set up: clause, group or phrase, word, and morpheme, plus the complexes of each rank. The sentence, as a grammatical unit, is treated in systemic linguistics as being a clause complex, formed by linking together individual clauses according to a set of semantic relations.

On the discourse semantic or contextual stratum, too, there are bigger units made up of smaller units – in other words, there are ranks. But it is somewhat harder to work with the notion of rank on the contextual stratum than it is on the grammatical stratum, so I will not go any further into this question at this point.

In addition to stratum and rank, there is a third dimension in the model, whose technical name is metafunction, or functional component of the semantic system. This notion is sim-

ilar to Karl Bühler's notion of function; however, while Bühler's representational function is carried over into systemic theory more or less unscathed, being called by Halliday the ideational function, Bühler's expressive and appellative functions get conflated together to one single function, the interpersonal. The ideational function defines the set of resources available for representing reality as a social construct, the basic model being that reality consists of a whole lot of goings on, in each of which there is a process, one or more participants in the process plus maybe some attendant circumstances; the interpersonal function on the other hand defines the set of resources available for constructing and maintaining interpersonal relationships and facilitating exchanges of information and of goods and services among members of a speech community – for expressing the self, and for appealing to others. In addition, there is a third function, which is not found in Bühler, namely the textual function. This defines the set of resources which make it possible to actually make the whole system function in a way which is sensitive to the context and to the situation. Finally, the ideational function is split into two subfunctions: the experiential, which is concerned with representing portions of our experience of the world, and the logical, which contains the resources for doing what could be called natural logic: relations such as equals, and, or, not, is modified by, says, means, and so on. These relations are treated separately because they generate structures of a special type: recursive, or, to be slightly more mathematically correct, iterative structures. These are linear structures capable of indefinite extension. The experiential function on the other hand generates closed, nuclear structures, which can be characterized as atom-like: particles, made up in turn of smaller particles, each of which in turn has its own internal structure, and so on. The textual function produces wave-like or periodic structures, characterizable as an ebb and flow of intensity – the kind of structures that underlie Theme-Rheme and Given-New patterns in the clause, for example. The interpersonal function generates prosodic structures, in which features act or are present over quite long stretches of discourse; I have already mentioned particles and waves, so to carry the metaphor from physics a step further, we could say that the interpersonal function generates something akin to electromagnetic fields.

In explaining how text is produced – note that I am using text here as an uncountable noun, referring to so much textual stuff or, to make the textile metaphor more explicit, to a portion of a fabric – in explaining how text is produced, the systemic model assumes that speakers make choices, selecting from the total range of options available to them the ones which are most appropriate in a given situation. Of course, the process of choosing need not be a conscious one. Each choice that is made, however, has consequences: it may turn off certain other options in another part of the system, or it may determine a part of a structure.

We assume that the process starts at a fairly high level of abstraction; let us say, for the sake of argument, that it starts on the stratum called situation. Here very general choices are made that determine the overall properties of the text or portion of text in question. These choices lead to structures being generated. The structures consist of functional roles or slots, which are filled by smaller units. Each unit is then the point of departure for a further set of systemic choices. The particular choices that are made may predetermine or preselect choices which have to be made later at a lower level of abstraction. Of course, in reality, it is rather meaningless to speak of earlier or later, as we can't actually observe the process of choosing, and it may well be that when people actually speak or write they choose many of the phonological or graphological features of

their text before they choose the semantic ones, for example, when writing poetry: one knows that the word to be chosen has to pronounceable as one syllable, and that the syllable has to have a particular vowel in it and end in a particular consonant, and so on. This of course automatically restricts the range of semantic options available, by disabling many of the possible pathways through the network of options.

On each stratum and at each rank, there are systems of options available. When we look more closely at these systems, we find that they tend to cluster together: systems that belong to the same functional component of the semantics tend to be closely involved with one another, such that choices made in any one such system immediately have an effect on which choices are still available in other such systems. If I choose an intransitive verb, for example, then I automatically have to choose to make it active; the option of making it passive would only be possible if the verb were transitive. Systems which are involved in different functional components of the semantics, however, are relatively independent of one another: regardless of whether I choose to begin my sentence with the subject or with a circumstance of place, I still have the choice between past, present and future tense. The two choices are independent of one another.

You may have noticed that I have used the word semantic a number of times without defining it. In the systemic model, everything is semantic, or, to put it another way, the semantics is everywhere. All the choices at the grammatical level are semantic, because there is always meaning involved. The kind of meaning involved, however, is not sensitive to the context – it is context-free, or better, because everything in the last analysis has a context of some kind, it is context-neutral meaning. Context-sensitive meaning is described by the systems of options at the discourse-semantic or contextual stratum, phonological meaning is described by the systems at the phonological stratum, and there is even phonetic meaning: In defence of the idea that there is meaning in phonetics, J. R. Firth once said "Surely it is part of the meaning of an American to sound like one". This aphorism ably demonstrates what a systemic functional linguist means by meaning, or if you like, what meaning means to us: it is not intention, at least, not in the sense of conscious intention, and it is not significance, in the statistical sense; it is kind of like a mixture of both, plus other things as well.

Above the stratum of situation in the systemic functional model, there are further strata: there is, for example, the stratum of genre, which is where the information about text types is stored. Features chosen at this stratum affect which registers will have to be called upon – which configurations of field, tenor and mode will be involved in the relationship between the text and the situation in which it functions. Above genre there is ideology, which determines which genre choices there are, and some systemicists work with a further level, the level of code. This lies between genre and ideology; it is concerned with the sociologist Basil Bernstein's notion that there are two basic styles of meaning: elaborated code, in which more meanings are made explicit, and restricted code, in which more meanings are left implicit: these two styles of meaning correspond fairly well with two different types of family structure, the positional and the personal, which in turn partly correlate with social class. But this level of the model is not really necessary for my present purpose, which is to account for errors made by non-native users of the English language when they are using it as the target language in the translation process.

Well, how do we account for these errors?

My general hypothesis is that errors are caused as follows:

A large number of errors are, I believe, due to system interference. That is, the student has not yet internalized and automatized the way the grammar and lexis of English carve up reality, and, by default, he or she is still using the native German system and trying to impose on English the typically German way of carving up reality. There are often quite significant differences between the way English and German carve up reality; in this connection, we could also say that the two languages in many ways have significantly different semantic architectures. Of course, in very many essential points, the two languages agree in their overall semantic architecture – certainly more so than, for example, English and Tagalog, or German and Eskimo do. But it may well be that the large amount of agreement between speakers of German and English about how to carve up reality fools the student into thinking that the two languages are basically completely identical. Here we can usefully go on and make a further distinction. We can distinguish between the semantic architecture underlying the lexis of a language, and the semantic architecture underlying the grammar. Lexis is more accessible; students can more easily learn to use lexical items correctly than they can grammatical structures. This is because the arrangement of semantic categories that lies behind the grammar of a language is usually of far greater ideological importance for a culture than the semantic distinctions that are encoded in lexis. The semantic categories underlying the grammar are very general categories, notions which are fundamental to a speech community's worldview, such as time, causality, consciousness, being, responsibility, intention, chance and necessity, moral authority, focus of interest and attention, newsworthiness, and so on. The semantics of lexis changes quite rapidly, constantly adapting itself in response to new demands and sometimes even in response to fashions and fads. Words acquire new senses more or less at the drop of a hat. The semantics of grammar, however, changes much more slowly, over centuries rather than over decades. The semantic system of English as a whole has been subjected to massive cultural pressures in the course of the last five centuries, and these pressures have led to a fundamental reorganization of the system, as a result of which the textual function has come to be highly foregrounded at the expense of the ideational. In a number of regions, the system is still somewhat unstable, and asymmetries in the semantic architecture point to processes of change that are currently in progress, even though the changes are happening too slowly to be felt in the space of a single generation: the semantics underlying the system of modal verbs, for example, is changing in response to ongoing redistributions of power and knowledge within the societies that use English as a first language, and the semantics underlying verbal symbolic processes – processes of saying, letting someone know, and so on – is particularly unstable, due to the changing role of human beings in the process of production: in most of the English-speaking world these days, human beings don't actually produce anything anymore – goods are produced by machines, with human beings producing and exchanging the information that enables the machines to function. This is having a particularly destabilizing effect on the semantic resources that are available in English for representing processes involving the transfer of information.

The overall results of the processes of grammatical change in English have in many cases been quite bizarre: for example, no other language in the world has a tense system quite like that of English, – one might even add, thank God! Certainly, from a German point of view, the English tense system grammaticalizes a large number of semantic distinctions

which are not grammaticalized in the German tense system, although a number of them can in many cases be encoded via the use of tenses in combination with particles. The result can be expected to be that native speakers of German, when confronted for the first time with the English tense system, will take quite a long time to master it. At first, they will be content to map their own, simpler system onto the more complicated English one; and even after they have been using the English tense system for many years, they will still often use it in ways that indicate they have a different inner model of how the system is actually structured and how it actually works. An example: I ring the doorbell of a friend. She is expecting my visit, but I'm late. She opens the door and greets me with "Have you caught the wrong tram?" To me this question implies I'm still on the wrong tram and haven't got off it yet, or perhaps that the question is a general question, with the word "ever" implied: "Have you ever caught the wrong tram?" My friend, incidentally, has a doctorate in translation science, and her English is very close to being perfect.

Sometimes, errors can be caused by overreaction. Fear of making a particularly common error can often lead students of English to go too far the other way. For example, fear of choosing the simple past tense instead of the present perfect might lead to the following exchange:

"Where have you been all this time?"

"I've been at the fair."

The reply "I've been at the fair.", is, of course, not really an example of an error. But it's not what a native speaker of English would have said in reply to the question "Where have you been all this time?". For the questioner, the unknownness of the whereabouts of the questionee is, although now a past state of affairs, nevertheless still linked to the present, because the effects of the not knowing where the questionee was all that time are still present as a mood of irritation in the questioner's mind: this present relevance to the questioner of the effect of the questionee's whereabouts having been unknown is in fact just as much a part of the questioner's Theme as is the unknownness of the whereabouts and the need to have them identified; and this is, in fact, part of the reason for the inversion of finite verb and subject. The finite verb carries the marker of the present tense; the questioner wants to thematize the presentness or present relevance; and the way in which the thematicness of something is signalled in English is by the structural device of fronting. The questionee, however, wants to play down the present relevance of his having been at the fair for so long – it's no big deal, as it were. The questionee has just come from the fair, and if the dialogue had not begun with a worried or accusing question, then we might have expected something like "Hey, guess what! I've just been at the fair!", in which the present relevance of the having been at the fair would be thematic by virtue of the mood of excitement that is still in the speaker's mind even after the cause of the excitement, namely the visit to the fair, is over. Of course, in order to treat such utterances strictly scientifically, we would actually need to postulate not just a Theme-Rheme structure for the clause as a whole, but also a separate one operating within the confines of the verbal group "have been", because the Theme of the clause "I've just been at the fair." actually ends with the word "I". I'll never forget the look of enlightenment on the face of one of our current fourth year students when I succeeded in explaining to her how structures similar to the Theme-Rheme and Given-New structures of clauses are also present in each of the individual nominal and verbal groups, and how these structures function in particular

concrete situations and what general principles are involved. No one had ever told her that individual nominal and verbal groups also had a thematic and an informational dimension to their structure, and yet knowing it had helped to pull together a whole lot of otherwise unrelated observations she had made about the internal structure of English Satzglieder. Above all, it was the distinction between the thematicness of the primary tense encoded in the finite verb, and the non-thematicness of all the further tenses encoded in the non-finite auxiliaries, that she found most fascinating and useful and helpful.

A systemic functional grammar can describe and explain phenomena such as this, because it was designed as a grammar of real live language, if you like. After studying the systemic functional description of the English tense system, in which the primary tense is described as the thematic tense, thoughtful students of the language would never respond to a question like "Where have you been all this time?" without first asking themselves whether or not they wanted to take up the questioner's theme of the 'present relevance' of a past state of affairs, or whether they wanted to defuse the issue by shifting the theme from the present to the past with the answer "I was at the fair."

In addition to errors caused by system interference and errors caused by overreaction in the attempt to avoid system interference, there are errors of the kind that educational theorists call "teacher-generated". The concept at stake here is similar to the notion of an illness of the kind called "iatrogenic", that is, "caused by the doctor". The field of psychiatry offers us a particularly striking example here: the kind of hysterical neurosis that manifests itself as a "split personality", for example, is actually quite rare. Certainly it is rarer than the psychotic illness schizophrenia, with which it is often popularly confused. My father, who is a psychiatrist, has never had such a case; I myself have been able to observe the phenomenon once at close range, in a friend of mine: suddenly one day he split into two completely separate beings, both sharing the same body, but only one of the two personalities being aware that the other one even existed. Now, the problem is that the neurotically split personality is a particularly interesting phenomenon, and a psychiatrist who believes himself to be dealing with such a case will often unconsciously elicit the signs of it in his patient, thus providing the material for an interesting case study for the medical journal. Something similar happened in the case I was able to observe: by showing my friend that I took a keen theoretical interest in his illness, I actually encouraged the symptoms to get worse. This is perhaps a corollary of the principle discovered in theoretical physics by Heisenberg and familiar to every sociologist, namely that it is impossible to observe anything without in the process influencing what you are trying to observe.

Of course, a language teacher is somewhat different from a psychiatrist. Nevertheless, a second-year student told me the other day that he was now confusing two words with one another which he would never have confused with one another if the teacher hadn't drawn his attention to the *possibility* of getting the two words mixed up. Naturally, I don't wish to imply that the teacher in question was driven by a subconscious desire to generate the data that would enable him to write an interesting case study for the language teachers' journal! To switch from the psychiatric metaphor to an ecclesiastical one: The catechism of the Church of England, of which I guess I'm still a member, as we don't have *Kirchensteuer* in Australia – I just stopped attending church services, I didn't actually ever formally declare I was ending my membership – anyway, the catechism of the Church of England distinguishes between "sins of omission" and "sins of commission", and the

General Confession of the Church of England phrases it thus: "we have left undone those things which we ought to have done, and we have done those things which we ought not to have done". The kind of teacher-generated error we are dealing with here would be a "sin of commission", that is, the teacher did something he should not have done. I have a few examples of such errors in my data, but it is of course difficult to prove that I as the teacher was responsible for generating the error, in that I explained something the wrong way or drew the student's attention to something which I wasn't really capable of explaining at all and which probably would never have been a problem for the student in the first place or which the student had already learnt the right way round in the Grundkurs. Whether it is justifiable in this context to speak of errors of omission, is doubtful. But I do feel that at least one very general error of omission is committed by all teachers of translation, and that is that we omit systemic functional grammar.

Having discussed the possible *causes* of errors, the question now arises: "How can we prevent errors from occurring?" Well, we might just as well ask: "How can we prevent *students* from occurring!" As a university academic I have often had the feeling that the university functions much better when the students are away on holidays, and I'm sure that many a public servant has felt that his department would function much more efficiently if only one wasn't constantly being interrupted by members of the public demanding service. But, joking aside: It is natural to make errors when learning a foreign language, and without them learning would probably proceed much more slowly. It is a well-known fact that a single error, made in a highly-focussed context, and properly corrected, can lead to lifelong mastery of the correct form. The only problem is that the context has to be a highly-focussed one, in which the only way the student can achieve a particularly important goal is by knowing how to use the language correctly and actually putting this knowledge into practice. In Australia, in the course of learning German for the third time – I had already completely forgotten it twice – I asked a native speaker of German to teach me all the names of the objects in the kitchen we shared. It became a pleasant game, but there was no immediately important goal at stake. The result was that I completely forgot the name of the thing you put in the hole at the bottom of the sink to stop the water running out. When I got to Leipzig some six months later, and discovered that there wasn't a single plug in my appartment, I immediately rushed off to buy one. Naturally I forgot to take my bilingual dictionary, and naturally it didn't occur to me that I didn't know the word for "plug" until it was almost too late. Now, trying to find a plug the right size for a kitchen sink was a major problem in the GDR in the autumn of 1988; but finding one was important, and because I had to do a lot of asking in a lot of different department stores and hardware stores, it was essential to know the word "Stöpsel" if I was to achieve my goal. Even though I've never had to think about plugs in German again in the course of the last four years, I've never forgotten the word "Stöpsel", nor the kind man sitting on a bench next to the Thomaskirche who patiently listened to my frantic explanation of what the thing was for and told me what it was called. A counterexample: a native speaker of English trying to learn German usually finds the gender system a major problem. Where there are no morphological rules to help, as in the case of nouns ending in -el like Stempel and Ampel, it usually takes quite a long time to learn the genders. But in reality it doesn't matter. You can speak German perfectly intelligibly even without full command of all the individual genders, and native speakers often begin a nominal group without having made a firm decision about the gender of the head noun. They

almost never correct themselves, however. Naturally, this is a mistake, not an error; it is related to performance only, and is no indication that the native speaker doesn't know his or her genders. A foreigner, on the other hand, even if his pronunciation is perfect, will immediately give himself away as soon as he gets a gender wrong, unless it's the gender of a very learned word indeed. If he gets a case wrong, for example by confusing the dative with the accusative, then no one will notice; everyone will think he's a Berliner. This is interesting, because cases play a more important communicative role in German than genders do. The only significant communicative role of genders is in enabling slightly more complicated patterns of pronominal reference in texts than is possible in English. And yet for the native speaker, it is the wrong use of genders which functions as the more immediately reliable signal of a lack of competence in the language, and thus contradicts the perfect pronunciation that had up till that point been happily functioning as the signal that the interlocutor was a fellow native speaker.

Of course, gender in German, because it is explicitly signalled by the form of the article and/or the ending of the adjective, is a relatively superficial phenomenon. English gender, on the other hand, has no explicit signal, and can thus be expected to be a much deeper phenomenon than the corresponding semantic category in German. And this in fact turns out to be the case. Native speakers of English who are conversing in German may well get the feminine or masculine gender of the name of an inanimate object right the first time round, only to go on and refer to that object in the next sentence as "es". A native speaker of German may well not perceive the identity of reference in such cases, because for a German, a decontextualized "es" is likely to be interpreted as referring to a general state of affairs, and not to a concrete object; and in any case, the concrete object in this case is for the German an "er" or a "sie", and not an "es". I've been speaking and hearing German every day for over four years now, but give me half a chance and I'll use "es" to refer to any entity which my native language classifies as a 'non-conscious being' – that is, everything except higher animals and human beings. The only exception is my computer, which somehow seems to have qualified as a genuine "er" by virtue of the fact that it appears to have "a mind of its own" and to be engaged in performing processes of a cognitive nature in pursuance of a set of goals. The semantic category of 'conscious being' is one of the "cryptotypes" of English, one of the "hidden" semantic categories that are not overtly morphologically marked. The relationships between such categories obviously constitute an important part of my worldview, and the categories themselves are like little tokens or counters that I think with, constantly rearranging them and contrasting them one with another as part of the process of thinking unconsciously. That such categories form paradigmatic systems and stable syntagmatic configurations which are of major ideological importance can be demonstrated by studying comparative semantics. Tagalog, the language of the Philippines, has hidden semantic categories which stand for the culturally important notions of family, face – in the sense of losing face with someone – and fate. None of these categories is of such major importance in the cultures of the English-speaking countries, so the corresponding three cryptotypes are missing from the semantic system of English. In Tagalog, however, the three categories of family, face and fate are of major importance. They run right through the grammar of the language from one end to the other, manifesting themselves in disturbed valency patterns of particular classes of verbs and via all sorts of abnormal interactions with other grammaticalized semantic categories.

Language is, to put it in Marx's terms, part of the superstructure. It is far from being merely a conduit through which meanings are poured, or an optically perfect sheet of glass which allows us to see reality "as it really is". The semantic system of a language is a device which serves a very important function in a culture: it functions to enable certain things to be meant with ease, while making other kinds of meanings extremely unlikely if not impossible. It is a device for imposing the social structure onto all aspects of our unconscious construction of reality, a device for ensuring that the world is interpreted in a way which always tends to stabilize and maintain existing unequal distributions of access to power and knowledge, or, in other words, to naturalize the existing state of affairs.

A good deal of this ideological load is carried by the semantics underlying the grammar of a language. Thus, it is not surprising to find that the deeper and more general of these semantic categories are quite resistant to change. Learning a foreign language means learning a new way of classifying and interpreting the whole of one's experience – it means learning to see and interpret the world in a new way. The overt signal that this process of cultural reorientation has been successfully completed would thus be likely to be that the learner never fails to use the semantic resources of his new language in identical ways to those of a native speaker of the language. Naturally, this is a somewhat idealized goal, which is never completely reached in practice. It may well be that, if such perfect command of a foreign language can ever be achieved at all, then it can only be achieved at the cost of part or all of the integrity of the native semantic system.

The question thus arises: Can linguistics contribute usefully to the task of helping someone to learn a second language? This question was in fact once put to a number of linguists by the editors of the Magazine of the English Association. Whereas Michael Halliday replied in the affirmative and went on to give a number of concrete examples, Noam Chomsky replied in the negative. If you want to help Mexicans to learn English, said Chomsky, then just tell 'em to talk to lots of Americans, and eventually they'll learn the language. The only role of linguistics, then, is, according to Chomsky, to argue that language competence is an innate and universal faculty of human beings, biologically inherited, and capable of constructing mental models of grammatical systems in response to an adequate amount of randomly encountered data from the external world. Now, for a language teacher, this could be interpreted as an excuse for doing nothing more than running a few conversation classes and organizing exchange schemes so that students can study – or wash dishes, or sweep streets, because for Chomsky it doesn't appear to matter – in an English-speaking country. This is, of course, quite tempting, and I must confess that I recently succumbed to this way of thinking. Confronted by two identical and fairly appalling translations, from the inseparable pair Anke Boczkowskaja and Lina Heyn, and no doubt suffering from nicotine withdrawal and lack of sleep, I told them that they might as well give up, and that if they insisted on wanting to try to become translators for English and German then the only hope for them both was to go to an English-speaking country and to stay there for as long as it might happen to take them to develop at least an elementary degree of Sprachgefühl. I don't know whether or not they decided to take my advice, but at any rate both of them left the room more or less immediately and didn't come back. This led me first of all to ask myself whether or not I had just violated their rights under Article One of the Constitution, and later to reexamine their translations. I discovered that at least one of the errors that Boczkowskaja had copied from Heyn or Heyn from Boczkowskaja was in fact almost certainly a classic teacher-generated error. [Actually I think it was a two-part

error, involving a sin of commission and a sin of omission.] A week or so previously, Lina Heyn had offered one of those wonderful Object-Predicate-Subject sentences which almost always work so well in German and Russian but which almost never work in English. In simplified form, her sentence was: "An overview of world population development presents the following table." When I pointed out what was wrong with the sentence, she defended her version by saying that in Russische Übersetzungswissenschaft the teachers always told the students to leave the Satzstellung unchanged. This led to about fifteen minutes of more or less wasted time in which I tried to present on the blackboard all the principles that are involved in determining the word-order of a typical English clause. It must have had some effect, though, because a week or so later, both she and Anke Boczkowskaja presented me with the following:

The source text was entitled "Scharfe Bilder von Blutgefäßen", and its first sentence was:

Bilder von Blutgefäßen in nie dagewesener Schärfe liefert ein Gerät, das in der Medizinischen Hochschule Hannover offiziell in Betrieb genommen worden ist.

Boczkowskaja and Heyn's translation ran:

A device produces pictures of blood vessels in never existing sharpness, which was put into operation officially at the medical college in Hannover.

Apart from not translating *nie dagewesen* as *unprecedented*, and apart from choosing past tense instead of present perfect in the relative clause, and possibly apart from putting *officially* after *put* instead of before it, and apart from not handling the proper name *Medizinische Hochschule Hannover* as well as she or they might have done, she or they had failed to see that the relative clause is – at least in the English version – quite clearly a restrictive one, and thus a constituent of the nominal group functioning as Subject. She or they had dutifully taken my advice to begin the sentence with the sequence subject-verb instead of beginning it with the sequence object-verb, but I had neglected to point out to her or them that a subject can sometimes include a restrictive relative clause. I didn't exactly feel like yet another lengthy discussion of restrictive relative clauses, let alone a discussion of the kind that modify a noun which is preceded by the *in*definite article! A scientific treatment of the whole issue would have involved introducing the notion of the information unit, which in turn would require bringing in the notion of the tone group, and then going back from phonology to grammar and raising the whole ugly issue of which subordinate clauses are actually part of the structure of their main clause and which ones are outside the structure of their main clause, and quite frankly, I didn't consider it worth the effort. I decided to keep in mind, however, the fact that Heyn or Boczkowskaja or both were probably still at the stage of reorganizing the order of the parts of clauses, and had probably not yet grasped the notion that in translating from German to English it is usually not the assignment of lexical material to the grammatical function of Subject that one should aim to treat as a quasi-invariant, but rather the assignment of lexical material to the grammatical function of Theme. This usually involves either simply changing the voice from active to passive, as in the case at hand, or else choosing a different verb altogether, one that allows the functions Theme and Subject to be mapped onto one another and be expounded by the same nominal group.

Now, while it is certainly true that linguistics has a great deal to offer the language teacher who is trying to explain why errors occur, passing this information on to the

students often requires a large amount of theoretical groundwork, and different students have different "cognitive styles". Some don't like theory at all – they can learn quite happily just by exposure to the target language and by trial and error, the way children learn their native language. Other students are quite the opposite. They need to have a reason for everything, and until they have a general principle they can apply they don't feel at all happy dealing with concrete use of the target language at all. Of this second group of students, some are happy to do their language theory in the target language itself, others can only really absorb the content of theoretical discussions when the discussions themselves are conducted in the native language. In my own experience, I have found that I can absorb a systematic treatment of the lexis of a foreign language in either of the two languages, but as soon as it comes to a systematic treatment of the grammar of a foreign language, then I would much rather have everything explained in my own native language. The same goes for translation theory. This probably has to do with the fact that lexis can be taught systematically without a great deal of theory, as the most important thing in learning lexis is to be introduced to each new lexical item in one of its most typical contexts. On the other hand, a systematic treatment of grammar which was based on contextualization alone and which tried to get by without a fairly sophisticated set of technical terms, is, however theoretically desirable it might be on paedagogical grounds, almost certainly something that has never yet been successfully done. I personally find it much harder to absorb and actually remember the content of abstract discussions – and grammar involves a fairly high level of abstraction – when the discussion is conducted in a foreign language. I find I'm too busy learning new things about the foreign language from the way the teacher said things, to be able to understand and remember what the teacher actually said. I've often asked the students whether or not they've been introduced to a particular concept in the course of their theory lectures or their classes in lexis and grammar, and very often I get a negative response. In some cases this may be due to the fact that the students are afraid I'm going to ask them to recite the definition of the concept, and they decide to play it safe and act dumb. But I often wonder whether perhaps they just simply didn't understand what they were taught, because they were taught it in the wrong language.

I personally find the attempt to explain the reasons for student errors extremely interesting. But then, usually when I'm doing this I'm using my own native language as the metalanguage and doing all my theorizing in English – the classic case of the armchair theorist. When I try to explain to the students the reasons why something is wrong and why something else is right, – if it's something I can understand at all, which it only is about sixty or seventy percent of the time at the most – , then I find I have to explain it to them in German. But not all of the students like this. Many of them would prefer to hear me speaking more good English rather than more faulty German. But if I try to explain everything in English, then I have to be careful to do it without too many technical terms, and that means in effect forgetting about scientific explanations altogether and just demonstrating which grammatical structure should be chosen in which kind of context. This is an interesting TEFL/TESL type challenge, but I often feel as though it's something that doesn't actually belong in a fourth year undergraduate course at an institute of higher learning. It's also quite time-wasting, because it means giving a whole lot of concrete examples all the time, each one of sentence length, where a single word would have sufficed, if only the students had previously had the chance to participate in the discussion

of which the word in question was the summary. This is actually one of the two main reasons for my decision to leave Leipzig and go to Saarbrücken: in Saarbrücken, they're introducing systemic functional linguistics into the undergraduate course for translators and interpreters. The new professor at Saarbrücken is a systemic computational linguist, and thus I'll have the chance to get back to working within the systemic functional framework that I was introduced to as an undergraduate by Michael Halliday at the University of Sydney. I find academic life without the keen analytical tools of systemic linguistics simply no fun. The other reason I'm going to Saarbrücken is, of course, the better job security. I'm sure that all of you, had you been in my position, would have done the same.

Well, I've held the floor for far too long, so perhaps we move on to the discussion stage now.

(That last sentence contained a typing mistake; but it may have been an error, and an indication that I've switched to an interlanguage system halfway between English and German; what I meant to say was, "so perhaps we could move on to the discussion stage now".) Over to you.