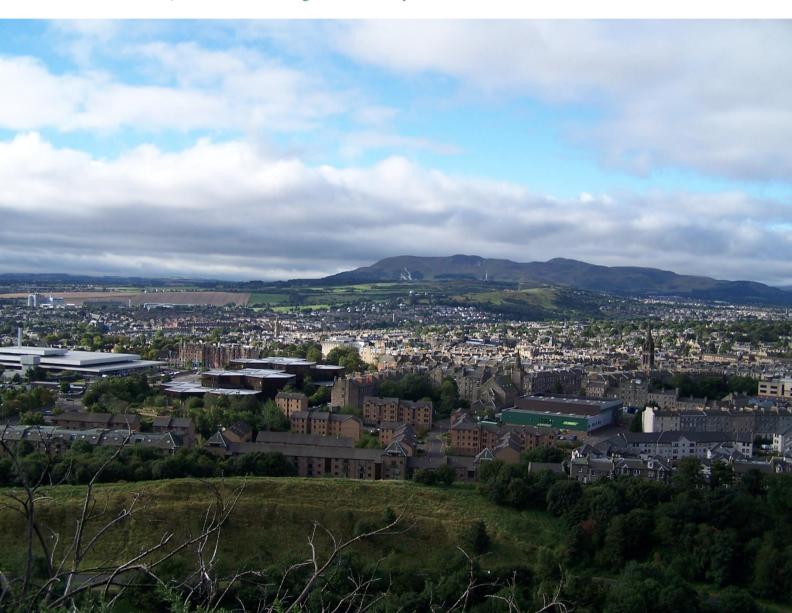
Technology, Ideology and Practice in Applied Linguistics

Proceedings of the 40th Annual Meeting of the British Association for Applied Linguistics University of Edinburgh, 6-8 September 2007



Edited by Martin Edwardes

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MEETINGS SECRETARY REPORT

Erik Schleef *University of Edinburgh*27/10/07

BAAL 2007 Edinburgh (6–8 September)

The conference theme of BAAL 2007 was 'Applied Linguistics Renewed: Technology, Ideology and Practice'. More than 300 delegates attended the conference. The conference marked 40 years of BAAL and also 50 years of applied linguistics in Edinburgh. Plenary speakers were Karin Aijmer (University of Gothenburg), Richard Johnstone (University of Stirling), and Norman Fairclough (University of Lancaster). Each concentrated on a different conference theme, respectively technology, practice, and ideology.

Very many thanks and congratulations to Alan Davies. Heather Hewitt, and other staff and students at Edinburgh University for a highly successful conference. Delegate feedback forms and emails abound in comments such as 'a memorable and inspiring conference - excellent organization - lovely venue wonderful volunteers'. The Pit Corder Colloquium and its video link with Michael Halliday and Ruqaiya Hasan in Australia generated the highest praise, e.g. 'the Pit Corder morning was exceptional: well organised, intelligent content, professionally delivered and managed'. 65% of delegates who filled in feedback forms rated the quality of the sessions, the conference venue and gala dinner 'very good', e.g. 'outstanding and intelligent presentations', 'well-equipped venue', and 'the conference dinner venue was an inspired choice'. Criticism from feedback forms centred around a perceived scarcity of break time and delays caused by the Bristol-based conference company In Any Event.

As usual, BAAL offered scholarships. There were 21 applications for the ten UK Student Scholarships, and 50 applications for the International Scholarship and the Chris Brumfit award; the former went to Julie Byrd Clark (University of Toronto) and the latter to Huamei Han (University of Toronto).

60% of delegates who filled in forms rated the presentation facilities 'very good'. Most PowerPoint presentations were uploaded into computers in the presentation rooms before the conference. Technicians circulated round the rooms offering help throughout.

Over half the delegates rated the programme, and the balance of SIG tracks and colloquia with individual papers 'very good'. The ratio of track/colloquia papers to individual papers was 1:3.2, slightly below last year's of 1:4. The number of papers submitted increased compared to previous years; however, with a 40% acceptance rate, the number of accepted papers (100) had dropped sharply, which was due partly to the increase in papers submitted, and partly to the need to

make papers fit the available time slots. The number of posters had fallen. SIG tracks and colloquia remained constant.

There were three proposed colloquia: 'Urban Classroom Culture and Interaction', 'The Emergence of Corpus Sign Language Linguistics' and 'UK Linguistic Ethnography Forum SIG'. There were four SIG Tracks: 'Assessment', 'Corpus Linguistics', 'Language Learning and Teaching', and 'Multimodality'.

The Edinburgh Applied Linguistics 50th anniversary reunion drinks reception took place in the Old College's impressive Playfair Library on Thursday evening. Circa 200 delegates attended the reception, and group photos were taken of former graduates following speeches by Alan Davies and Ronald Asher.

40 years of BAAL and 50 years of AL in Edinburgh were jointly marked through the Pit Corder Colloquium Friday morning. Participants were encouraged to reflect on both past and future developments in applied linguistics. The colloquium consisted of two parts: a video-conference link with M.A.K. Halliday and Ruqaiya Hasan, with questions fielded by Alan Davies, John Joseph and Albert Weideman in the first half, and short papers by Diane Larsen-Freeman, Sinfree Makoni, Miriam Meyerhoff, Keith Mitchell and Ros Mitchell in the second. This was followed by a tribute to John Sinclair.

The BAAL Gala dinner, followed by a ceilidh, was held at the *Our Dynamic Earth* visitor attraction Friday evening. The conference closed the following day with the last of the three plenaries and closing remarks by several representatives of BAAL and Edinburgh University.

The Pit Corder Colloquium, 7th September 2007

Transcribed and edited by Keith Mitchell

Caroline Heycock: As you will know, Stephen Pit Corder was director and then Professor of Applied Linguistics in this University from 1964 to 1983 and is regarded by many as the father of applied linguistics in Edinburgh and even in the UK. BAAL recognises his contribution by its annual Pit Corder lecture, but this year to mark the 50th anniversary of applied linguistics in Edinburgh a colloquium is replacing the lecture. We welcome to this colloquium two of the most prominent figures from the early days of applied linguistics in Edinburgh, Professors Michael Halliday and Rugaiya Hasan, who are joining us by videolink from Sydney. The colloquium will be chaired by John Joseph, Professor of Applied Linguistics here at the university and currently a Leverhulme Trust Major Research Fellow.

John Joseph: Good morning. The first question will come from Albert Weidemann of the University of Pretoria.

Albert Weidemann: Good morning. I was wondering whether we shouldn't start on a personal and professional note, and to ask both of you whether there are any particular memories that you have of Pit Corder - any particular incident or event that might place the second part of this colloquium in perspective for an audience that will not have known Pit Corder personally.

Michael Halliday: Yes, good morning by the way. Very nice to greet you all. I'm not very much help here because of course I knew Pit Corder's work but I had very little personal contact with him, so I'll have to pass that one on. Let me pass it to Ruqaiya to see whether she can do any better on it.

Ruqaiya Hasan: Good morning and thank you for giving us this opportunity to talk to you. Well, in fact I too left Edinburgh at about the end of 1963 and so I didn't overlap with him in Edinburgh at all; but I do remember one occasion when we had met. I can't quite remember exactly where it was - either Leeds, where I was working then, or Edinburgh; and Pit said to me, "Well of course when you write a grammar you're actually doing applied linguistics." Now that was very interesting to me because that put in front of me the picture of linguistics as pure theory - simply what Basil Bernstein would have described as the syntax of the theory, and the language of description for theoretical concepts, but nothing else. The other thing that I remember – and of course that is something he is very well known for - is the concept of interlanguage. I found that concept interesting and though it could have been used to refer to language stages in children learning their mother tongue. But other than that, I really don't know much about Pit.

Alan Davies: Good morning, Michael and Ruqaiya, and thank you both for being with us today. My first question concerns the name. Can you comment on the name given to the School of Applied Linguistics when it was set up? Over the years has the term 'applied linguistics' been helpful or not? Would a more neutral term, such as 'applied language studies' perhaps, have been more appropriate?

MH: Yes, I've been able to think about this - since you very kindly sent us these questions in advance, which was very helpful. And I was trying to reflect first of all whether the term 'applied linguistics' had first been used by C.C. Fries and Robert Lado in the United States. We didn't have much contact with them at the time, so on that one I just don't know. But on the European side of it, I first came across the term 'applied linguistics' sometime in the mid-fifties – in the context of the collaboration between the British and the French in the development of ideas about second language teaching. This was the time when the distinction began to be made between second language and foreign language, and the demand for ideas, practices, suggestions, theories in the field of second language teaching came out of the history of decolonisation, essentially, after the Second World War. In other words, there were a large number of countries which had been British colonies, or which had been French colonies. that were now independent and were developing their own national languages but were very keen to ensure maintaining standards in English and French and spreading the ability in these languages much more widely in the population. And on the British side, of course the leaders there that I was familiar with were Ian Catford and Peter Strevens. And it was actually in their company that I went over once or twice to the Ecole Normale Supérieure de Saint-Cloud, where the French group were located. And they were the authors of the original Français Élémentaire or Français Fondamental as it later came to be known Gougenheim, Rivenc, Sauvageot - so there was a lot of contact between the two and that was the context in which the term applied linguistics first became familiar to me and came into, I think, quite common usage. By the time of the first congress in 1964, the first AILA Congress in Nancy, the term was well established obviously, as you can see in the name there. And I can't see any harm with it. We'll take that up later if you like, the question of: What's the nature of applied linguistics? Is it a discipline or not? I'd give it some other characterization, but I don't feel myself that there's any great advantage in trying to deconstruct the term and replace it with something like applied language studies. Let me ask Ruqaiya about that.

RH: Now, I've been thinking about this too – and thank you for sending the questions ahead of time. Because really, when you come to think of it, language study is a wide term and it can apply to anything, so for example, literary criticism of any kind is also language study. You could not possibly say that when people are talking about imagery and simile and so on, they are not doing language study. Similarly, the grammar book that I had

the good or bad fortune of being taught from - Nesfield - that was also language study. But when you say applied linguistics, in some way, for me - maybe because I am a linguist - linguistics has an edge on language study, in the sense that it kind of says, 'this is study of language that is based on some objective principles'. The question is what those principles are. Sometimes people make their linguistics very narrow and almost useless. Sometimes people make their linguistics of a different nature, so it depends on what you understand by linguistics. But I myself prefer to think in terms of applications of linguistics rather than applications of language study, unless you really want to include nearly anything that has to do with the study of language - but obviously in second language teaching, I don't think you would want it that wide ... but I don't know.

AD: Thank you very much. You're quite right, I'm sure, that names take on a life of their own really. The chair of English literature here is still called the chair of Rhetoric, and somehow it still seems to work .. And Michael I think is right in saying that Fries and Lado used the term before it was used here (and I see Diane Larsen-Freeman, from Michigan, in the audience here nodding her head). And the journal of Language Learning was called in fact - and that began in the early fifties - that was called 'Language Learning — a Journal of Applied Linguistics'. So the term was in use already. I'll hand over to John Joseph here...

JJ: In its earliest years the applied linguistics programme at Edinburgh included a component on educational psychology, which ceased to be a formal part of the course by the mid 1960s. At that time the work of Basil Bernstein was widely seen as linked with your own approach to the social psychology of language, including its educational dimension. Since the 1960s the social has continued to feature prominently in your work but psychology less so, at least on the surface. My question to the two of you is: What place has psychology played in your work since the 1960s? Has it been narrowed down to the semiological and the functional? Has it been dispensed with? Or does it continue to play a key role in your approach to language and applied linguistics?

RH: Do you want to go first?

MH: No. (Laughter)

RH: Well, yes. It would be right to say that systemic functional linguistics in general and my own work in particular is influenced by Basil Bernstein's thinking, though it doesn't mean that I follow every single thing and replicate it in my work. To me Basil Bernstein was an interesting sociologist because the basic question that he asked was really a question of psychology: How does the outside become the inside? And how does the inside reveal itself? This is a question that reaches out of sociology into psychology; it is one that perhaps psychology could have asked quite usefully. But there is a lot of psychology which in the light of today's neurolinguistics and neurological studies would turn out

to perhaps need a little bit more attention to the social. But in so far as my own work is concerned I have gained from the work of George Herbert Reid, and I have certainly used the work of Vygotsky quite extensively. If you look at the psychologists I have used, they have always been people who, using my own classification, could be described as having exotropic theories - theories that locate their object of study where it actually develops, where it changes, where it grows, rather than looking inside the object itself and trying to answer the question by looking simply inside that object, be it language or human mind. As someone once remarked, Vygotsky actually turned Piaget on his head - this was in connection with the relation between the internal and external language, or the egocentric and the sociocentric language. He was able to do this because he looked outside psychology, so he showed convincingly, that egocentric language could not develop unless sociocentric language had already taken shape. So it's really a question of which psychologists you use and why you find them usable: it is a question of how it links with your conception of language. Primarily I think of myself as a linguist, and so if I look at a psychologist I would be looking to see what that psychologist tells me about language that I would not learn anywhere else and how it makes me understand language better.

MH: Yes, I think one thing that happened was the emergence of psycholinguistics, in other words a new discipline or inter-discipline under the name of psycholinguistics, which was prominent from the late sixties onwards into the seventies, eighties. I myself made very little contact with that mainstream psycholinguistics as it was. I couldn't really make very much connection between what was going on there and my own work. As Ruqaiya says, it was much more with the development of modern neuroscience - we're talking about the late eighties, the nineties onwards - work on the structure, the evolution of the brain, how the brain develops in infancy and so on, starting with, say, Gerald Edelman and then coming through Terrence Deacon and now a number of others because of the immense advance in imaging technology. All that has totally changed the picture as far as I am concerned, because that seems to me to resonate so beautifully with the views of language which I have held and which I've tried to develop, both in terms of language development in early infancy, and also with the social dimension of language. I like Susan Greenfield's term 'mind as personalised brain'. In other words, it is the personal history of the individual that shapes that individual's mind, but that is something that happens in the course of that child's interaction with its environment, as we saw in a programme by Robert Winston, a BBC programme we were watching last night, on the mind. It's now totally possible and indeed very necessary to make contact with this work, which has emerged under the general heading of neuroscience, much more so than it was in the time when the main source of contact with psychology was through psycholinguistics.

AW: I'd like to turn to your own work too now with my second question. And I ask this question simply because

I'm interested in what happens to people at historical turning points. To me, your own work created a bridge between theoretical linguistics and social perspectives on language at a time when the discipline was badly in need of it. My question is this: At that time, did you see its importance for the historical development of the discipline? Did you have any inkling of how influential it would be? Or did you simply do it out of sheer conviction? Or, if I could phrase the question just a little bit differently - if say in fifty years' time or even in a shorter period there was to be a similar commemorative colloquium on the work of Halliday and Hasan, which questions would be asked - or would you hope to be asked - of your intellectual heirs?

MH: Oh, the second half I'm going to pass to Ruqaiya (laughter). She can think about that while I answer the first part. I just would like to put together four components. One was simply personal conviction. One can look into background reasons for that. It could be connected with all sorts of things like my father being a dialect specialist in Yorkshire. But secondly and most importantly, there's my background as a student of Firth, because of course for J.R. Firth the link between theoretical linguistics and social perspectives was central. You couldn't do linguistics unless you put it in that sort of context, and I took on that view from Firth. Thirdly was my own background as a Marxist and work with our little linguistics group in the Communist Party in the fifties. We were searching for a Marxist linguistics and that obviously had to be grounded in a social context. And then, fourthly, in the sixties, when I came to work with Basil Bernstein, not so closely as Rugaiya did, but still interacting with him quite a lot especially during that decade in London, sharing many of his ideas and greatly admiring his work, as I continue to do. So I think there are all those four components at least in my own personal history.

AW: And are you going to keep on avoiding the second part of my question (laughs)? Or are you passing it on to Ruqaiya for a bit?

MH: Well, I could really, I don't know ... (laughter)

AW: I'm not going to force you to answer it (more general laughter)

RH: I suppose if it came to the question of what I hope people who have worked with me might be able to say about my work, I would hope they might perhaps think that I seriously tried to understand the nature of language; and where I took that understanding, both in developing such understanding further and in using that understanding for solving some problems. Because indeed there are so many problems in our life which can only be solved by looking into what people are doing with the language and how. You can do this provided your linguistics is not so narrow that it has lost touch with human life. Now I do not believe in doing a linguistics that does not have anything to tell me about human beings as semiotic actors in society - about the way that they use language both for exploiting it for good reasons and for bad ones. Both of those have to be

understood. So I hope people might think that perhaps the kind of linguistics I have pursued was of this kind!

AW: Thank you.

MH: Let me just round that off with the term that I've started to use in the last five years or so for what we do — I like to call it 'appliable linguistics'. It always bothers editors because they want to change it to 'applicable', but I don't mean that because 'applicable' is 'targeted'. I mean 'appliable', in other words a theory which is problem-based, which is essentially a way of solving problems. And I've always said that the sort of questions that we ask about language tend to be not so much questions from inside linguistics as questions that other people have, people who are in some way or other connected with language. So I would like to see what has happened to that sort of notion.

And while we're on this topic, we hope that somebody might come to the conferences at our new centre in Hong Kong, starting this year with the conference in December on 'Becoming a World Language'. That's the commercial!

AW: Thank you (laughter).

AD: Can I take you on then from 'appliable linguistics' and take you back again to the beginnings of applied linguistics here in Edinburgh. In those early days teaching in the School of Applied Linguistics was carried out by people from discrete disciplines. There was no discipline of applied linguistics. But with the growth of qualifications in the field, such as PhDs in applied linguistics, a discipline has emerged. Now some critics speak wistfully of the need to return to what Rampton has called the 'open field' of applied linguistics, in which everyone is a specialist in their own discipline – psychology, linguistics, education, and so on, thereby perhaps avoiding the issue, the problem of what applied linguistics means. In your view, is there a 'discipline' of applied linguistics?

MH: I prefer to think of it as a 'theme'. This is what I was saying in a paper to AILA in Singapore in 2002, arguing that applied linguistics was not a discipline so much as a theme, in the sense that it was a way of exploring certain questions - in the sense in which one might say mathematics is a theme rather than a discipline. It's a way of exploring certain questions - in the case of applied linguistics, questions where language plays a major part, but is, so to speak, being addressed by professionals from many other fields. And it seems to me that the difference is not that great between the two views that you mention. Because, yes, certain things have happened, branches growing up within applied linguistics, such as bilingualism, theory of translation, and so on, so that these are, if you like, coming from inside rather than from outside. But surely in the views from outside, the professionals are still very much partners in the enterprise. If you are interested in educational aspects, for example, teaching second languages, or teaching of science, you're inevitably going to be involved with other specialists. It's not so much that they're not still there, as that the way of organising the discipline has changed. And I think another thing that has changed is that there has been a very great increase in people's awareness of how central language is to so many different aspects of human life, as Ruqaiya was saying just now, and how important that is if you want to intervene. In other words, if you want actually to take part in these processes - educational, clinical, forensic, whatever they are - you've got to take language seriously. So that has led to perhaps a greater focus on language itself than was the case in the early years of the discipline. But when I went to Sydney and started up this new degree, we called it 'Applied Linguistics' and then in brackets 'Language in Education' to show that that was at least one point of emphasis. But applied linguistics was recognized as a professional qualification for teachers, so we needed the term for that reason.

RH: Now, may I come in at this point? When I was at the School for Applied Linguistics as a student, we did have a psychologist, Beth Ingram, who lectured to us, and true, she would probably not have called herself an applied linguist, but then I suppose Catford would not have called himself an applied linguist either. He would most likely have identified himself as a phonetician. And this seems interesting for two reasons. One is that almost any field in which you apply the understanding of language which comes from a discipline - call it linguistics - almost any such field of application abuts on other fields. So, one perspective is that if you are teaching the language of law, you can't really say that it is only lawyers and legislators who should be responsible for helping with the teaching of the language of law; a lawyer, as lawyer, may not be even interested in that enterprise. Take the comparable case of psychology in the teaching of language: psychology is just as wide a field as law; and so a psychologist who comes into applied linguistics would need to be particularly interested in aspects of psychology relevant to the teaching and learning of language; they will not be teaching psychology, per se. The second issue that comes to my mind is that perhaps we do not need to think in terms of totally separate disciplines. We probably attach too much importance to the autonomy of a discipline. I believe this faith in the autonomy of a discipline might be rather misplaced - certainly misplaced in the case of the social and the human sciences, because in these disciplines, there is the heart of the problem – their object of enquiry – which each particular discipline must address, but it cannot do that without paying attention to something that is outside the central problem: in these disciplines theories have to be exotropic. Taking language as an example, I would have said that by putting it in society one understands more about language than by simply looking exclusively inside language as a way of understanding its nature. Take what used to be thought of as language being autonomous. Now you cannot really do a lot with language if you look at it as an autonomous object. You can't say why we're able to use it for so many different purposes, how come it manages to do this job under changing circumstances, and all of those questions. It seems to me that there is not one discipline of applied

linguistics – I agree with Michael there – but there certainly is something that is at the core of every single application of linguistics and that something is the understanding of language – the understanding of language to the best of one's methods of approach, which goes without saying.

AD: Thanks very much. I suppose behind my question is the following. When Elisabeth Ingram – Beth Ingram, whom you mentioned – was teaching here, if you'd asked her what is it you teach, she would have said psychology, or the psychology of language perhaps. And Ian Catford would have said it's phonetics, and if Michael had been teaching here, he might have said I teach linguistics. (...) Now today, when I ask people what is it you do, they say I teach applied linguistics. That's the dilemma I'm presenting: what is it they mean when they say that? Because it suggests that there is something which they see as an area – whether it is a theme, or an area, or a discipline, or a subject – that they belong to.

MH: I think it has become institutionalised under that name. There are programmes, there are departments, there are degrees and so on. But secondly, I'd just like to make my point that it has ramified so much – there are so many courses, so many topics now, that it's become an integration of a number of different sub-parts, and I think the sense is that they are now more integrated than they were when everyone was contributing simply from some outside discipline. That would be my view.

RH: Yes, it has certainly exploded.

JJ: I want to ask you about critical applied linguistics. Reading a book like Alastair Pennycook's introduction to this subject, one gets the impression that politically engaged textual analysis, together with all the issues of applied linguistics and language teaching that are now routinely treated in terms of their political dimensions, owe their principal debt to Foucault and other continental theoreticians. Yet historically, there would appear to be a direct line from your work, through that of Roger Fowler to Kress and Hodge to Fairclough and the Lancaster school and beyond. Now, casting any modesty aside, would you dispute my assertion that the two of you are actually the principal sources of the critical-political strand within applied linguistics?

MH: Well, I wouldn't like to say 'principal sources'! I think that in the work of Roger Fowler, his linguistic criticism or critical linguistics, literature as social discourse, and similarly that of Kress and Hodge on language and ideology, these things from the late seventies and early eighties were really fundamental in this total effort. Now to the extent that we had some background in this, yes, I think we played some part. I certainly don't think of us as being principal sources. But the point is that I would put this kind of work squarely within linguistics. I think part of the problem perhaps in the way that Alastair Pennycook looks at it – I'm not sure about this, but it could be that it's treating discourse analysis as if it's something either outside language or a kind of secondary application of

linguistics, whereas to me discourse analysis is and always has been a central concern of linguistics itself. And it may be that there are two different strands coming together here and he has focused on one of them rather than the other.

RH: My take on this is ... maybe rather unusual. If you think of CDA as a discipline, or as a theory, then it is a bit unfortunate to call it critical discourse analysis. 'Critical' is an attitude; discourse analysis is the issue. Once you have the means for discourse analysis, you can do discourse analysis, and you can read the meanings in it, then you can be critical, or you can appraise, you can agree or disagree, judge its social effect - you can make your own choices about which direction you want to go. So from this perspective, to say that there is a theory of critical discourse analysis is, well, ... unless it is a theory of how to be critical in a way that has to be logically acceptable generally ... there does seem to be a problem, because 'critical' in the sense of CDA is just one perspective. I'm not saying it's unimportant.; on the contrary, Fairclough's work has raised awareness of problems that was not there before and a lot of people use it with understanding and gain a lot out of doing so. A critical analysis of discourse I can understand, but a theory called Critical Discourse Analysis I find questionable.

JJ: It's a very good point – very interesting, and a critical point, if I may say. But let me turn to Albert for the last question.

AW: I'm going to take you a little away from the potential polemics of this for the moment. But we may return to that after this question, when we open it to the floor and when we let other people apart from the panel ask you questions. My final question is - it follows on really from my previous one, which makes something of the division that there was between what Rugaiya has called autonomous linguistics and the other kind of linguistics, the more human kind of linguistics. Linguistics in the 1980s divided quite distinctly into a theoretical and sociolinguistic part, I thought. What would your reaction be to a division within applied linguistics today - whether it be a theme or a discipline or whatever - between modernist and post-modernist paradigms and approaches? ... I'm asking what would your opinion be about such a division.

MH: Yes, yes. I feel that the whole opposition between the modernist and the post-modernist has been exaggerated, not just in linguistics but in many other areas as well. Now, I think it was Chris Brumfit, in that book edited by Maurannen and Sajavaara, who talked about "the post-modern project". And that seems to me fine – that is a project within a general field, as there is within many fields, but I don't see this really as a division in any sense of splitting the field into two. And indeed I would be very unhappy if it was treated like that or if that's how it seemed to end up.

AW: Thank you. And Ruqaiya?

RH: Well, no, I was just thinking. I would say computational linguistics as an application of linguistics is a kind of applied linguistics. The mind boggles how it could be post-modernist, but maybe it can. Maybe it can – nothing is impossible.

AW: (Laughs) Every time I try to protect you from polemics you go ahead and elicit them again. (Laughter)

RH: Maybe I'm just polemical.

JJ: All right, thank you. Well we're now going to open it up to the audience to ask questions, so if you raise your hand, we've got assistants with hand-held microphones who will come to you. Professors Halliday and Hasan won't be able to see you but I hope they'll be able to hear you.

DLF: Hello, my name's Diane Larsen-Freeman, from the University of Michigan. (...) I was interested in your comments about disciplines and areas of knowledge. I was a student of Kenneth Pike, by the way, who taught us what you must do is always come with your questions when you have an opportunity to pose them, so I have several. But the one I wanted to pose now [and give other people the chance to do so as well] has to do with the nature of the discipline – or is it a discipline? I was intrigued. Michael, by your comments in 2001. which I believe was a reprise of an earlier paper you had given at an AILA Congress, where you talked about linguistics as transdisciplinary interdisciplinary but transdisciplinary. That is, you start with a problem, with a problem-space, and you bring to it what other disciplines have to offer. And that's what I just heard you say now. But I didn't hear you use the word 'transdisciplinary' and I wondered if that was still your thinking.

MH: Yes, thank you. I would certainly maintain that term. Let me just give a brief context to it. We have been hearing for a couple of decades now about the importance of interdisciplinary work in our teaching and in our research. And the first attempts to achieve something along these lines tended to take the form of what Basil Bernstein used to call a collection code - that is to say, bits and pieces from the different disciplines cobbled together for a particular project. Now I'm sounding scathing about it - I don't mean to do that: it can be very useful. But what worried me was that that seemed to ignore what was really happening around, which was a kind of restructuring of knowledge something that was happening where universities and departments ought to be leading the way. And so I said, really what we're looking for is not something interdisciplinary but something transdisciplinary, and by that I mean something that would really reconfigure knowledge in important areas. And this is my notion of appliable linguistics – I saw this as an important move in that direction, it was creating a new structure of knowledge. I would like to rescue the term semiotic, which got kind of co-opted in the last part of the postmodern project. I want to say: we are concerned with the essential nature of semiotic systems, of which language is the prototype. Semiotic systems are not like physical systems in many ways, but they have to be studied by an underlying conception of what science is, and what scientific knowledge is about. I see applied linguistics as playing a big part in that move towards recognising, and indeed furthering, the restructuring of knowledge which I think we need in the present age.

RH: I would like to go back to a point I was making earlier about psychology in applied linguistics. It really is not just psychology; it is psychology that has reconfigured itself to meet linguistics half way in solving a problem; and linguistics, in turn, has reconfigured itself to meet teaching; and teaching, to the understanding of language. So in this sense it is transdisciplinary.

Sinfree Makoni: I just have one very simple question. The trajectory of your ideas about language in society is conventionally traced back to the work of Malinowski and Firth as well as to the Marxist intellectual tradition, but you also spent a considerable amount of your time in China. How did your knowledge of the Chinese language, the ways meaning is articulated in it, and your reading of Chinese grammarians whom you refer to quite frequently shape your views about language?. This dimension of

your work has not been written about extensively because there are few people in applied linguistics who can read Chinese grammars as well as having a working knowledge of Systemic Functional Grammars so perhaps your response will help to fill this gap.

MH: Yes. Thank you. I suppose my initiation into linguistics came in China, through the Chinese tradition of linguistics. Two of my great Chinese teachers, Luo Changpei and Wang Li, were both specialists in this, so they taught me the history of linguistics as it evolved in China, and many features of that certainly went into my own thinking. On the Marxist side, the interesting thing was - well of course there was the fascinating controversy that took place in the Soviet Union in 'Pravda' in 1951. That would be a big side issue - I won't go into that. There was work like Marcel Cohen on Marxism and language, but this tended rather to take a Marxist view of traditional ideas about language, whereas to me what was needed was new ideas about language. And that meant particularly, however, not so much new theories as new descriptions. The Marxist component was one which focused obviously on language in its social context - socio-economic context. but was what I referred to earlier as a problem-driven theory. It was a theory that had to evolve - and I never saw myself as a theoretician, but as somebody faced with problems which had to be solved, and these were attempts to think about these problems. So my own background wasn't in the Anglo-American field; it was originally much more in Chinese. I studied historical linguistics through Sino-Tibetan, not through Indo-European and so on.

RM: I'm Ros Mitchell from Southampton. I would like to ask you what you think the main impact of your work has been in the field of education, and whether you are satisfied with that impact.

RH: Well, I've done no work in ...

MH: But that doesn't mean you don't have ideas about the impact ... (laughs). It was at University College London, in the 1960s that I got directly involved through our programme in Linguistics and English Teaching. And I was very proud of what was achieved in that programme, and I can say this without immodesty because it was done by the teachers in the programme, in the work on Breakthrough to Literacy, Language in Use and Language and Communication. I thought there was a very substantial output. They were focused on mother-tongue education in the context in which that was evolving in typical British cities, in other words, where you were getting large numbers of people in the classes for whom English was not their first language, so these programmes were targeted at those who were the most disadvantaged in the educational system. I hope that that had some impact over time. Most recently, since going to Sydney, I think the main contribution has come from Jim Martin and his colleagues in genre-based education. This has been developing our notions of functional variation or register variation in language, and has particularly focused on the language of learners of other subjects. They started in the primary school but they did a large part of their work in collaboration with teachers of maths, teachers of science, geography, history and so on in the secondary school. And I think one thing that has come out of that is a much deeper understanding of the way in which learning any discipline is also learning language. In other words, you can't separate the learning of science from the learning of the language of science – these are one and the same thing, just as you can't separate the evolution of science and scientific disciplines from the evolution of the discourse that went with them. So those are just two fields in which I certainly am very happy with the way in which things have been taken up and developed - over my lifetime anyway.

JJ: Can I just follow on from that? Are there other areas though where you would like to see more done, where there are opportunities that have not yet been taken up?

RH: Yes, there are two issues in literacy education that I would like to see developed. Both have been initiated but they could do with more attention. The first issue concerns what I have called 'reflection literacy'. It is an approach to literacy which considers it necessary not simply to know how to act with language, how to write an application, how to write a lab report, how to do this, that and the other, but also to teach how to read with attention to inferred meanings, looking at a discourse from the point of view of who is saying what to whom, why they are saying it, who might or might not be advantaged or disadvantaged by this particular discourse. The aim is to enable the reader to understand where the speaker is coming from and where they are heading, and who are the people who are implicated in the consequence of this. Today this kind of understanding, particularly in countries that pride themselves on having democracy, is very important. If the majority can't understand the implications of a particular political speech, simply skimming on the surface of discourse, then there isn't much true democracy. The second issue that is very dear to my heart is to extend literacy education to reading literature. Actually it's an old concern of mine: I entered linguistics because I wanted to change my part of the world by teaching literature in a way that was different from the way that literature has always been taught, which is to say, mainly emoting about it – expressing evaluation, saying simply you like or dislike it, or that it sends a thrill down your spine. You master conventional phrases, you learn which epithets to apply to whose style. I did a little work in this area, and developed an approach to the study of literature within the framework of systemic-functional linguistics, which actually depends on language analysis to see how verbal art has been created by the patterning of meanings in the work; and how the essentially metaphorical nature of language is revealed. With the help of that kind of approach, you can make statements about a work of literature, which it is possible to argue about, because the evidence for your claims lies in the patterning of worded meaning. Usually we are not able to teach how to read literature by making systematic use of linguistics to probe into its metaphorical essence, so that the study of literature becomes more like handing down opinions. The approach I am suggesting is in fact simply an extension of reflection literacy.

MH: Can I just add a little component to that? You see, I was thinking particularly of the work of Geoff Williams, who is now working in British Columbia and who was a PhD student of Ruqaiya's, who is very keen on the role of – now we call this 'grammatics', that is the theory and description of grammar - in the educational process, to the extent that he has been exploring with primary teachers, actually teaching functional grammar in the early years of primary school - Year 2 and then I think Year 6. Now this links up with my feeling that what we have lacked in the educational work is a real impact on teacher education, where the work has to be done if there is to be any change in moving towards a clearer sense of the role of language in learning in general. And I think that, you know, in order to get anywhere with new ideas like those of Geoff Williams, somehow or other there has to be an impact on the basic processes of teacher education. Now we know there's also a problem there in the sense that those like, for example, Joan Rothery in Sydney, who did try to build in some very good work on language in pre-service teacher education, find that the problem there is that at that stage, when they have not yet actually spent time in the classroom, the learners are not really convinced that it's worth looking at language at all, whereas the success really comes when you get in-service workshops, where those in the profession have now had experience in the problems of language - problems OF language essentially – and are very keen to explore it. I've always been amazed at the extent to which teachers will give up their spare time after they've been teaching for two, three, five years and so on, and say 'Right, now we want to find out something about language.' So there is this problem of what's your context for doing this kind of thing. Nevertheless, I don't think it's an insoluble problem, somehow or other to bring a much deeper awareness of language into the basic teacher education programmes.

AG: I'm Ardeshir Geranpayeh from the University of Cambridge. I want to go back to that disciplinary question that Alan Davies raised earlier on. I share Alan's concern about the identity problem, not because he used to be my supervisor but because we're dealing in language testing. I see that applied linguistics is in a way similar to another discipline, psychometrics. In psychometrics you've got psychology and you've got mathematics, basically statistics. But if you talk to a psychometrician, they don't call themselves either a psychologist or a mathematician, they call themselves psychometricians. It's easier for them because they're applying certain applied statistics to a particular field. But it's more difficult for applied linguistics because the moment you use the term linguistics people think that you are a linguist, and this is the identity problem. If people ask me what I am, I say I am a language tester. Then they say: which discipline do you come from? And I say I'm an applied linguist. I can't consider myself a linguist because I haven't been trained as a linguist and the problem, as far as I can see, with applied linguistics is that it covers a wide area of mini-disciplines. So linguistics is just an element in that. The question is: linguistics is part... as far as it is related to language, it is relevant to applied linguistics. but I don't really see the initial discussion that we've been told as, when we started the applied linguistics course, that in a way applied linguistics was linguistics applied to teaching or whatever that follows that. So in a way the identity problem is: How do we separate ourselves from ... or do we want to separate ourselves from linguistics?

MH: Well, I hope not. I mean, why should you? Yes, the problem is a real one in the sense that because of the immense resources that are going into exploring new fields we're getting many more subdivisions within the existing disciplines. There has to be some kind of rethinking, reorganisation, but at the same time I also think there is a unity defined in terms not so much of what it is you're looking at - that's the traditional kind of disciplinary boundaries - but rather the kinds of question you're asking. So you're asking questions about language. I don't see why you don't call yourself a linguist in that sense, the point being that there are all kinds of people now in and around linguistics who have this very specialised view—they have to have, because knowledge has advanced and you can't be everything. I belong to the dinosaur generation of those who try to be generalists. And well we ARE dinosaurs now because the subject has got too big for us. I'm glad I'm retired because I'd never be able to keep up. I myself have never drawn a line between linguistics (in brackets 'theoretical', if you like) and applied linguistics. Essentially it is a discipline that is concerned with exploring questions about language. What those questions are will depend on whether you're coming from outside or whether you're specialising more from inside. But the fact that you're not covering the whole field does not to me suggest that you shouldn't say what you're doing is linguistics or call yourself a linguist.

RR: I'm Ruby Rennie from the University of Edinburgh. I'm curious about ... my question is I suppose about language and context. We're sitting here in a lecture theatre - I wondered how you would describe where you are and what language you're using right now.

MH (to **RH**): It's context, so you go. (Both laugh) It's your kind of question.

RH: Yeah, but maybe I'm not actually getting the point of your question because it seems to me that the framework for the description of context should be such that it ought to encompass the description of a context of this kind, in which there is eye contact with some but not with all and in which there is near immediacy of give and take. Also I can see some of the people - I can see them smile or look bewildered or look dismayed, which gives me some idea of how my sayings are being received. So maybe I haven't quite understood your question because I don't really see that there is a problem ... so I probably didn't get your question.

RR: What I find interesting is that the panel we have in front of us look rather formal, whereas you are very informal and I feel I can almost chat to you, which is really quite odd. (Laughter)

MH: Well at the last minute I decided that I needed to have a tie on - that's something I never wear here in Sydney. But I put it on because I thought it'll show a little bit brighter.

RH: Yes, well, maybe when you are convening a conference you have to be formal. We, Michael and I, are sitting here quite relaxed; we're not worried about anything; but I think that the conveners of the conference are thinking of a hundred and fifty things — may be worrying if the session is going well — whereas we are just enjoying ourselves and very happy to be able to talk to you.

MH: Yes. We would I think see this, I would, in terms of our usual basic way of structuring anything in a context in which some encounter is taking place. I won't go into this in detail except to note that when you talk of the field of discourse or the mode of discourse you have to recognise on the one hand that there's often more than one level going on at the same time, and on the other hand that the view from one participant may well be quite different from the view from the other participant.

JJ: We have time for one more question.

LT: Good morning, my name is Linda Taylor from the University of Cambridge. You mentioned the notion that the role of applied linguistics is a means of solving problems, and I wonder what you consider to be the urgent or the emerging questions or problems to which applied linguistics can help provide an answer. Are they more or less the same as they've always been? Or do

you think there are new ones that are characteristic of our particular age?

MH: One way of looking at this, it seems to me, is to see what are the fields in which linguistics is being applied. Obviously, education - that's been there all along. But more recently, clinical linguistics, which took much longer to get off the ground but where now there's a lot of action. Some of Rugaiya's students are leaders in this field in Australia. So those are new problems, or at least the problems have always been there, but it's new to recognise that linguistics has a role in solving them. Another one of course is forensic linguistics, the language of law - these are areas where what we've seen in recent decades is a recognition that, yes, there is a role for linguistics in addressing these problems. So you've had terminological changes - for example, from the 'legal' to the 'forensic', from the 'medical' to the 'clinical', all of which say that there is a linguistic component in addressing these things. That's one way of looking at it, I think, to see what are the areas in which new problems are being defined. (To Ruqaiya) I don't know if you want to have a last word on that.

RH: No, I don't. I totally agree with you. The only thing that I would say is that there have been remarkable semantic changes over the last couple of decades or so since globalisation picked up speed. And I feel that reflection literacy, the deep learning of the kind that, for example, Geoff Williams' work through the teaching of grammatics to very young children shows that, if taught to read with understanding, even young children can actually give a perfect interpretation of the text in front of them. And we do need to understand the ways in which terms like democracy, freedom, free trade and so on are being used and what they mean for one participant as opposed to another participant in the real contexts of situation. Today's 'glibspeak' does need to be de-glibbed.

JJ: Professor Hasan, Professor Halliday, I want to thank you very much on behalf of everyone on the panel, everyone in the audience, really in celebrating 50 years of applied linguistics in the UK and 40 years of BAAL. There's no one else we could have turned to who could both link us to the beginnings and point us straight the way into the future but the two of you. This event would have been empty without the two of you. It was not possible for you to be here but we're so delighted and so grateful to you for taking all the trouble for this arrangement. It's not an easy arrangement to make on either end, but particularly on your end. You've given us a lot of your time, a lot of your knowledge, you've enriched us greatly, more than we can say, and we thank you very very much indeed.

Benefits and risks of the effects of mother tongue knowledge on the interpretation of figurative expressions¹

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Applied linguistics covers a wide range of research, but there are still under researched areas, especially in the research into EFL situations. This presentation focuses on the effects of knowledge of the mother tongue on understanding/interpretation of figurative expressions. A considerable number of idioms and proverbs are used figuratively, where cultural knowledge rooted in the mother tongue may reside. The presentation discusses the results of the cross-cultural examinations of the effects of the mother tongue on the understanding of idioms and figurative expressions. The data were analysed from the points of view of the conceptual backgrounds, schemas (or cultural elements) and mental images (or cognition processes). The aim of the examinations was to discover misunderstandings/misinterpretation lay, with a view to locating communication problems. Past research that was made use of in this study are Azuma, M. (2005), Cherteris-Black, J. (2002) and Kovecses, Z. (2007).

Research questions

- (1) Are there any interpretation differences among the English native speakers, classified as one of the ethnicity differences, such as those of American, Australian and British English speakers?
- (2) Are there any interpretation differences between the native and the non-native speakers, classified as mother tongue differences?
- (3) Are there any specific phenomena in Japanese EFL learners, classified as a pedagogical problem in a target language?

Methodology

The methods for investigation: testing (Metaphor Cognition Test, M-Cog Test, with 40 test items) and interviews with 50 English NSs (E NSs), comprising 19 Australian, 18 British and 13 American English speakers, and with 34 Japanese NSs (J NSs, the majority of whom were EFL learners). The testing and interviews took place in Australia, Britain, the United States of America and Japan in 2006 – 2007. The scale used to compare data was an interpretation correctness ratio of each item.

M-Cog test

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The 40 test items (all in English) in the M-Cog Test were classified into the following three groups according to the characteristics of the items:

The first group, G1: a similarity-sharing group, where the same/similar concepts/wordings occur in the English and the Japanese expressions: 13 items, for example, He is my right arm or Time is money.

The second group, G2: a partial similarity-sharing group, where there are similarities either in the concepts or in the wordings: 16 items, 8 each of English and of Japanese origins, with the classifications of G2E and G2J respectively; among the 8 items in G2E, there is an item of English origin (to come to a head) with its meaning being presumed to be misinterpreted by J NSs (G2E/J in Table 1). The remaining 8 are of Japanese origin, among which are 2 items that share the wordings but the meanings are different in each language: to pull someone's leg(s) and He must be soft in the head to do such a thing (G2J/E in Table 1).

The third group, G3: a difference group, where there are differences both in the concepts and in the wordings between English (G3E: 5 items) and Japanese (G3J: 6 items): 11 items, for example, to kick the bucket in G3E and a horse out of a bottle gourd in G3J.

Results

RQ1: Phenomena found among the English NSs

The items in G1, G2 and G3 were intended to show the effects in interpretations generated from/caused by knowledge of the mother tongues or general schemas, i.e., if the interpretation ratios of the items in G1, G2E and G3E were high for E NSs and if those in G1, G2J and G3J were high for J NSs, we could say that the mother tongues and/or schemas may have been utilized. From the result in Table 1, knowledge of the mother tongues and/or schemas, i.e. general schemas in a broad sense, was effective to a degree in the interpretations of the expressions (even though they were unfamiliar to them). One item (a body blow) out of the 13 items in G1 in the correctness ratio of American NSs showed a slightly different phenomenon with around a 70% correctness ratio, compared to approx. a 100% correctness ratio in the other NSs. It was interpreted literally. The rest of the items showed considerably similar features in G1.

Item	N of	E NSs	J NSs
groups	items	N=50	J=34
G1	13	96.1	56.1
G2E	7	92.7	27.2
G2E/J	1	92.6	8.8
G2J	6	42.3	55.4
G2J/E	2	0 in J	85.3
		100 in E	
G3E	5	93.9	30.6
G3J	6	27.9	64.2

Table 1 Correctness Ratios (%)

The problematic expressions in G2J and G3J for E NSs were such expressions as originated in Japanese

concepts; however, the metonymic expressions and those with clear images (We are united with a red thread.; to cast a shrimp to catch a bream) were less problematic; hence, we could say that intuition and common schemas were effective and that the speakers' cognitive process was effective in these cases. These allude to the similarity in both the E NSs and J NSs. The most problematic expressions were those with the same wordings but with different meanings in each language, which were shown in the G2E/J and the G2J/E (E and J in the columns stand for English and Japanese respectively).

RQ2 and RQ3: The differences in the mother tongues and the phenomena of EFL learners

There were considerable differences between the two parties: each party interpreted better the expressions originated in or caused by their mother tongues. These phenomena were revealed in the correctness ratios in Table 1. The results of the table indicate that the mother tongue knowledge/schemas were employed in interpretations by the both parties. In addition, qualitative analyses showed vocabulary knowledge of English, e.g., words and/or idioms, and general knowledge, especially of the Japanese subjects, affected their interpretations.

As a specific answer to Topic 3, i.e., whether or not the learners' specific trait was related to understanding English figurative expressions, the following result was remarkable: a significant phenomenon in the case of Japanese EFL learners' vocabulary size showed a positive correlation: the Pearson correlation between the M-Cog Test and Vocabulary Levels Test (Schmitt, 2000, 2000 word level) was r=.759; p<.01. Azuma (2005) also indicates a similar correlation between metaphorical competence and vocabulary knowledge (VLT: Schmitt, 2000 & 3000 word levels and Polysemy Test: Azuma, 2005).

Summary and conclusion

With regards to schemas and cultural effects, the schemas and knowledge generated from the mother tongues, past experiences or intuition may have ambivalent effects; however, interpreters could utilize or rely on their schemas and general knowledge, if they knew the risks involved in the interpretation of certain expressions. The most problematic expressions that require caution in this regard are those using the same/similar wordings with different concepts/meanings in the two languages, for example, to come to a head, being soft in the head or to pull someone's leg(s).

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But Where's the Proof? The need for empirical evidence for data-driven learning

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Corpus studies of native speaker and learner language have been influential in informing syllabus design and course content in foreign or second language (L2) teaching. Corpora can also be explored directly by the learner, in what Johns (1991) has called "data-driven learning" (DDL). Such an approach is alleged to have many advantages, including fostering learner autonomy, increasing language awareness and noticing skills, and improving ability to deal with authentic language. Although such theoretical arguments may seem convincing, their power is mitigated by the fact that DDL has yet to filter down into mainstream teaching and learning practices. In other words, it may be fine in theory, but what about in everyday practice? Empirical evidence in support of the theory would seem essential.

Survey

In the search for such evidence, we looked back at several hundred papers linking corpora and L2 teaching / learning since the appearance of the seminal collection of papers by Johns and King in 1991. The sheer volume of publications attests to the interest in the field, at least at the research level. Among these papers, we found 39 studies which report some kind of evaluation of DDL beyond the researcher's opinion. These are analysed in this paper, not as a traditional overview of findings but rather in an attempt to sort out the main strands of the types of research conducted to date. The survey is of necessity succinct in the extreme; readers are referred to the original studies listed in the bibliography.

Background

The studies were conducted in 19 different countries, attesting to a variety of different contexts (although 24 of the studies were in Europe). Most used native speakers of the countries they were in, with occasional non-native learners (e.g. exchange students); only five (all in English-speaking countries) drew on foreign students of mixed nationalities. The L2 was English in 34 of these studies, and a European language in the other five. Obvious reasons include the current level of demand for English, but also the greater availability of tools and corpora, not to mention awareness of corpus linguistics and DDL. There is certainly room here for broadening the scope to other target languages.

Learners

Of the 39 studies, only two focused on younger learners, while 36 were conducted with students in higher education, including eight with postgraduates. Of these, 18 studies involved participants who may reasonably be regarded as "sophisticated": in 15 cases they were enrolled for a degree course in the L2, or in a translation

degree including the L2; a further three studies involved linguistics students. The other 18 studies focused on students needing English for academic or specific purposes. It is thus apparent that the majority of the studies are concerned with more or less advanced learners. Only two claim "low" levels and two "beginners", although careful reading casts some doubt on this.

Corpora and software

A wide variety of corpora were used in these studies, from the very large to only 2000 tokens. Some translation-based studies used parallel or comparable corpora, but most were monolingual. Published corpora included the BoE, the BNC, Brown, ICE and MICASE, used where appropriate with the packaged software (VIEW, Sara, etc). Many researchers created their own corpora according to students' needs and preferences: some sourced the internet, some used CD-ROMs, others scanning printed works (e.g. textbooks). In some cases students created their own corpora, usually as part of a corpus project. Overall, WordSmith Tools was the most popular software, being used in 12 studies, followed by MicroConcord in five. A variety of others were also used, including some home-produced, but surprisingly the web was only used directly as a corpus in two studies. The majority of studies allowed learners direct access to computers, although a few provided only paper print-outs.

Aims

The studies as a whole have extremely diverse objectives in mind, often attempting several things at once, which makes any definitive summary difficult. However, it seems convenient to class them into three main groups. In one, the main focus is on learners' attitudes towards corpus use; in another, the emphasis is on learners' practices – what they do and how well they do it, i.e. whether they are capable of becoming amateur corpus linguists. While these are both important areas, it is worth noting that neither attempts directly to evaluate the efficiency of corpus use by learners. This is the aim of the last group, which does focus on the L2, and here we can detect two major currents. Firstly, there are those which look at the use of corpus tools for reference purposes, essentially for translation, writing or errorcorrection. This may indeed turn out to be the main interest of corpora for learners (as indeed it can be for native speakers), but in these studies little if any attempt is made to investigate whether learning takes place from such use. Only a handful of studies tackle this directly; here the focus is almost exclusively on aspects of lexis, with very controlled tasks between an experimental and a control group, or in before-and-after situations.

Design

The studies here seem to fall into two main categories: those which start with a course, which they then seek to evaluate; and those which start with a research question, which they then attempt to investigate. These basic paradigms are reflected in the research instruments used: apart from "informal feedback", among the most popular are classroom discussions (11 studies),

questionnaires (10) and interviews (8), often in combination. A few made use of automatic tracking, learner diaries, and classroom observation, while others analysed language use in specific set tasks. Interestingly, the evaluation in 11 cases was based on a written or oral report which the students had to provide on a language point they had studied using corpus techniques. The diversity of research instruments reflects the different research questions focused on; this is on balance likely to be beneficial, although it does make comparison and overall conclusions difficult.

Scale

For the 34 studies which provide explicit information, the average size of the learner population is 38.97. Five studies involve more than 100 students, while at the other end of the scale, there are two case studies of a single learner; another six involve 10 students at most. Eight studies involved a control group per se; four others managed to construct the design so that the same informants switched between two different task types, experimental and control; nine compared performance in pre- and post-tests. 16 of the 39 papers are purely qualitative in nature; a further 11 involved only raw numbers or percentages, with no or extremely limited statistical analysis. The remaining 12 attempt a more or less quantitative approach, but only six evaluate language learning as such (cf. "aims" above), and these are exclusively lexical or collocational in nature.

Discussion

If one may attempt a sweeping synthesis of such a variety of research, the general conclusion is that both qualitative and quantitative studies produce highly encouraging results: learner attitudes are largely positive; in most cases they are remarkably capable of corpus techniques; corpora can be used as an effective reference tool, as well as for learning. But however enthusiastic, all the studies here are also careful to point out limitations; in particular, it seems that the use of corpora may not be appropriate for all learners, at all levels, for all language points. Careful study is needed not just to show that DDL works, but in what conditions.

The majority of research to date concentrates on fairly sophisticated students in a university environment at a relatively advanced level of L2 ability. It may of course simply be that researchers favour their local environments for practical reasons. Alternatively, it has frequently been claimed that DDL is most suitable in such cases, but this position seems to be essentially an intuitive one: as we have seen, there has been extremely little empirical research to date with younger, less sophisticated, lower level learners in school environments with limited resources (in particular, without regular class access to a computer laboratory). The sheer size of school populations might encourage researchers not to reject the possibilities out of hand, but rather to explore empirically whether DDL can have anything to offer in such cases.

Few would argue for a radical corpus revolution in the classroom, but it is easy to see how DDL activities (such as those in Tribble & Jones, 1997) could be integrated into course books, and how publishers could produce more learner-oriented software and pedagogic corpora, either available as companion websites to published material or as stand-alone sites, for private study or for teachers to access and print out for class work. However, there has been minimal uptake by publishers and other key decision-makers in L2 learning – education ministries, teacher training institutes, educational establishments, etc. More empirical evidence, if positive, might enable DDL to break out of its current research confines and into wider L2 contexts.

The call for more research can be found repeatedly in the DDL literature, empirical or otherwise. 39 studies may seem a reasonable number, but it amounts to just over two a year since the Johns and King (1991) collection, and is largely the work of a small number of researchers. As Angela Chambers (2007: 5) puts it in her survey of 12 DDL papers, "it is worth asking why there are not more large-scale quantitative studies" - or, indeed, more empirical studies of any kind in the field. One possibility is that researchers are understandably daunted by the prospect of implementing large-scale, longitudinal studies carefully controlling for large numbers of variables. However, there seems little obvious reason why such difficulties should be greater in DDL than other areas of L2 pedagogical research. While large studies are of course desirable, it is often possible to separate out subsidiary questions to be tackled individually on a more modest scale.

Given the number of variables involved, no single study is likely to "prove" very much, just as a single concordance line is not the best evidence for language use. To take the analogy further, corpus linguistics looks at many concordances to find the general tendencies of language patterning; what is needed here is a large number of studies in DDL to see where the weight of evidence takes us. Without empirical support, the most we can hope for are statements along the lines of "I think", "it seems to me", "in our opinion", etc. - which do indeed feature prominently in much of the DDL literature. While such statements may be based on reasonable arguments, they are perhaps insufficiently powerful to convince the major decision-makers to invest in the production of appropriate materials, or to allow DDL techniques significant place in teacher training or L2 curricula. It is at the least ironic that empirical evidence should be so lacking in a field relating to corpus linguistics, where the nature of evidence is crucial

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Errors committed by L3 learners – what are they like and what do they tell us?

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Since multilingualism has become a common world phenomenon, there has been a growing interest in the processes which take place during third (and further) language acquisition and during language use within a multilingual mind. Researchers have particularly focused on cross-linguistic influence taking place during multiple language acquisition and use, since it can provide interesting insights into such processes (cf. the articles in Hufeisen and Lindemann 1998; Dentler, Hufeisen and Lindemann 2000; Cenoz and Jessner 2000; Cenoz, Hufeisen and Jessner 2001; Tokuhama-Espinosa 2003; Hufeisen and Marx 2004; Hufeisen and Fouser 2005). The term covers all the positive and negative, intentional or non-intentional effects of the learner's (more or less advanced) knowledge of two, three or more languages which may be observed in his/her linguistic production and reception in any of his/her languages, as well as in his/her language learning achievements. Although cross-linguistic influence may take place between all (inter)languages and in all directions, there is some evidence that the socalled 'last language effect' is often the strongest (Dewaele 1998; Chlopek 1994; Williams and Hammarberg 1998; Hammarberg 2001; Ecke and Hall 2000, qtd. in Ecke 2001:105). There are, however, several factors which shape cross-linguistic influence and determine its intensity, e.g., the typological distance between acquired languages - perceived (psychotypology) and actual, length and amount of exposure to each of them, proficiency in each language, recency of language activation, the native vs. foreign language status of each language, the degree of metalinguistic awareness or (formal vs. informal) mode of language acquisition and use. These variables must be taken into account before any theories are created on the basis of conducted research.

In my research study I have investigated one type of cross-linguistic influence, i.e. negative interlingual transfer in written production.

The subjects were students from the German Department of Wroclaw University, where I teach English. These students' native language is Polish, their L2 is German, which they know at an advanced level (C1), and their L3 is English (here, the proficiency level ranges from A1 to B1). Most of them have learnt German in the classroom and all of them have learnt English in the classroom. They use German nearly every day; their exposure to English is much lower. Both German and English have a foreign language status for them. Most of them show a high

level of metalinguistic awareness and they often perceive English and German as similar.

The experiment consisted in the analysis of errors of linguistic and pragmatic competences found in the students' written test responses (involving translation of phrases or whole sentences from L1 to L3 and sentence- or text completion) and free compositions (essays, book/film reports, learner journals and written projects). The first step was to classify each error into one of four groups: lexical, syntactic, punctuation and pragmatic, and to recognize its language source (L1, L2, L3 or some combination of them). Next, the types of operations underlying the lexical and syntactic interlingual transfer errors were recognized. Within the area of lexis, these were code switching, nonce borrowing, semantic extension (accompanied by a cognate relationship or not), false friends, loan translation, article transfer (a specific type of LT) and framing transfer (also a kind of LT), morphological transfer (caused by a cognate relationship or not) and orthographical transfer (caused by a cognate relationship or not). At the level of syntax, the operations included: loan translation, word order transfer (a specific type of loan translation), semantic extension and loan translation combined with semantic extension.

It was hypothesized that:

the L2 \rightarrow L3 transfer would be stronger than L1 \rightarrow L3 transfer (rationale: last language effect, close typological distance between German and English); most form-based operations would take place between

German and English (because of the similarities resulting from typological relatedness);

most meaning-based operations would take place between Polish and English (on the grounds that native-language concepts are built early in life and are often attached to the languages acquired later in life, if these are learnt via formal instruction);

L2 would be the basis for code switches and nonce borrowings (students rarely place native language items in their foreign language utterances, a possible reason being language status).

The total number of errors amounted to 1942. Among these, lexical errors comprised the largest group (1320); the students also made 427 syntactic errors, 88 punctuation errors and 107 pragmatic errors.

Hypothesis one turned out to be true of lexical transfer errors only. In the case of syntactic and pragmatic errors it was the students' L1 that seemed to have the strongest influence and in the case of punctuation errors – both L1 and L2. This means that the role of L1 in L3 acquisition must not be underestimated.

Hypothesis two proved to be true. In the areas of both lexis and syntax, form-based errors were cases of L2→L3 transfer.

Hypothesis three has been disproved for lexical errors. The possible reasons may be the perception by the students of German and English as being closely

errors.

related (psychotypology) and also their FL status. On the other hand, in the case of syntactic errors, the answer to the third hypothesis is a cautious yes. The students' L1 exerted a strong influence in cases of (meaning-based) semantic extension and (partially meaning-based) loan translation. Only where loan translation combined with semantic extension did the students' L2 play a prominent role. Conceptual

L1→L3 transfer was also observed among pragmatic

The answer to *hypothesis four* is yes, though there were not many instances of code switching and nonce borrowing (the numbers would probably have been higher in the case of spoken production). Even though such errors are very vivid and thus easily noticed by teachers, probably their importance should not be overestimated.

Additionally, the following observations have been made: (1) Students produced a lot of instances of loan translation within the area of lexis (nearly a half of all interlingual lexical errors). This implies that teachers should pay special attention to this kind of error. It seems that the importance of form-based operations like false friends is often overestimated; such errors may be easily noticed, but constitute a minority among my student's errors. (2) Among the syntactic errors, word order transfer and semantic extension were the dominating operations. The former is basically automatic and thus difficult to control; the latter is caused by the fact that syntactic meanings are often more difficult to grasp than lexical meanings. (3) As for the punctuation errors, the vast majority were interlingually induced. Here, L2/L1→L3 transfer was the strongest (this double influence is caused by the fact that the Polish and German punctuation rules are often similar). (4) Among the pragmatic errors, the native language played a crucial role. This is not surprising, since native language pragmatic norms are acquired in childhood along with other aspects of culture-specific knowledge. However, a large number of the students' pragmatic errors were caused by some intralingual confusion; a very obvious conclusion is that a precondition of communicative success is an adequate level of foreign language competence. (5) The number of intralingual errors was very high (41.3% of all errors); most of them were found among the lexical and pragmatic errors. This means that in the process of building their L3 competence, learners make both inter- and intralingual connections. Thus, crosslinguistic influence, though an important phenomenon, must not be overestimated in the teaching-learning process.

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GrammarTalk: international students' responses to an online grammar resource

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Written accuracy is a major problem for Chinese students following academic courses in British Higher Education. British academic writing programmes, however, are generally more concerned with academic literacy than with grammar. Errors in written work may be corrected and commented on, but class time tends to be spent discussing the rhetorical structure of academic writing, uses of citation, avoidance of plagiarism and the like. A recent survey of the wants and needs of Chinese students on Warwick University's preundergraduate foundation programme indicated that the students considered grammar instruction the least satisfying aspect of their English course, and wanted grammar to feature more prominently in their language lessons.

In response to this mismatch between students' requirements and course content, we have been developing GrammarTalk, an e-learning grammar resource. GrammarTalk is intended to address students' most common grammatical mistakes, to skills, and provide improve proofreading to international EAP students with flexible independent learning support. It is targeted at Chinese and East Asian learners in particular, although it has also proved popular with students from other parts of the world.

The syllabus for the GrammarTalk materials was informed by our systematic analysis of a corpus of 50 assignments (88,000 words) written by Chinese participants on a British pre-undergraduate foundation programme. This analysis (reported in Chuang and Nesi 2006) indicated that mismanagement of the English article system was the most frequent cause of error in the students' writing, and misuse of prepositions was the second most frequent cause. We thus decided to initially develop two units of materials focusing on the use of articles and prepositions. To provide an EAP focus for the materials, we selected excerpts from the Chinese learner corpus we had previously used for error analysis, and from a corpus of proficient university student writing (the pilot corpus of British Academic Written English). Both corpora have an academic focus in terms of language, communicative purpose and information content.

Our choice of source texts was unusual. Example texts in grammar teaching materials tend to be short,

lexically restricted and trivial in terms of information content. Of course there are good reasons for this; short and simple texts allow learners to concentrate on the relevant grammar point without the distraction of unknown vocabulary or interesting new information. Our examples, taken from authentic academic assignments, were far more linguistically and cognitively demanding, but we justified this on the grounds that they provided models for the kind of texts our learners themselves had to write. Longer excerpts also provide more information to help learners make appropriate grammar decisions; article use, for example, often depends on a consideration of context beyond the level of the sentence.

We also noted that our approach to syllabus design differed from that of standard pedagogical grammars. Grammar teaching materials do not normally prioritise topics according to error frequency, and typically give the same degree of attention to structures that our target learners know well and those that they often get wrong. Once again, there are good reasons for this. Article and preposition use is notoriously difficult to teach and learn, and misconceptions are often deeply entrenched. An increase in the amount of time and space devoted to frequently occurring problems will not necessarily result in a proportionate increase in learning. Moreover, common grammar errors do not always affect communicative effectiveness to any great extent; indeed this is one reason why they are not eradicated at an earlier stage in the learning process. Allowances are usually made for article and preposition errors in speech, and when such errors occur in written text they usually result in loss of precision, rather than complete communication breakdown. It is understandable that teachers should prefer to concentrate on problems that are easier to resolve, and that might lead to errors of apparently greater gravity.

GrammarTalk aimed to revise learners' understanding and raise their awareness of problems that they had previously been able to ignore. The activities were devised to encourage apperception and comprehension of the target features, using consciousness-raising tasks to promote self-discovery, as advocated by Rutherford (1987), Ellis (1991) and Thornbury (2001). We also included production-oriented activities as a means of initiating hypothesis testing and rule refining. Deductive and inductive presentations were combined, so that learners had opportunities to formulate their own grammar rules by analysing selected language data. The operation of the program was kept simple to counteract the effect of task complexity, and we hoped that the clues, help features and feedback in GrammarTalk would enable learners to work independently, and that the pictures, sound and animations would make the materials more accessible and fun.

Following these principles the first unit of *GrammarTalk* (articles) was developed and introduced to international students at Warwick University. The dedicated *GrammarTalk* website also provided a tutor-

discussion forum moderated and an online questionnaire. We evaluated the materials by gathering students' responses to the questionnaire and asking them to comment in writing on their likes and dislikes, the ease of use of the program and their suggestions for improvement. Forty students (37 Chinese and 3 non-Chinese) used the materials and filled in the questionnaire. Another 33 students (all Chinese) used the materials and then commented on them. The following excerpts from the two sets of data indicate the impact of the materials. Students agreed on several positive aspects:

GrammarTalk raised awareness of grammar deficit

"I thought the concept of singular count nouns, plural count nouns and noncount nouns is easy, but actually I made mistakes on this topic, and I discovered that I am not so clear with some nouns."

"I came to realize that why I made so many mistakes before. I never really identify those specific and unspecific or definite and indefinite nouns, although I used to believe I knew something about them."

"Some of the problems always appear in our essays. By doing the exercises we can avoid making the same silly mistakes again."

"I didn't notice many of those grammatical mistakes before."

"I found that something is not as easy as I thought, such as count and noncount; singular and plural."

The use of technology enlivened boring topics and supported learning

"The Flash in Uniqueness is very attractive. It makes me more interested in this exercise, because grammars are always boring."

"I am really interested in this e-learning program, which differs from learning grammar using thick and boring grammar books."

"The good combination of illustrations, tutorials, exercises and the pop-up further explanations not only leads students to finish the exercises smoothly but also helps them remember and re-remember some important grammar points in the use of articles."

The materials fostered self-discovery and independent learning

"The exercise first gives examples instead of the definition, then it comes with the definition. In this way, we can work out the definition after our own analysis."

"I can check the answer and have the feedback as soon as I did it."

"The exercises tell you why your answer is right and wrong with thorough explanations."

Some students responded negatively, however, to our use of academic assignments as example texts:

"There were some new and difficult words which made some examples difficult to understand."

"Could you add a glossary of difficult words?"

"Some passages are very long, which makes the exercises a bit boring. Can we have shorter texts?"

Overall, it would appear that our choice of syllabus and teaching methods were appropriate for our target

learners. In the process of completing the *GrammarTalk* materials many of them seemed to reappraise their own grammatical knowledge and recognise common errors that they had not previously been aware of. We think that it would have been difficult to achieve this result with traditional print-based materials, without instant feedback and interactive activities to support and motivate learning.

The choice of appropriate example texts remains problematic, however. The authentic texts we have used so far seem too difficult for some learners; but we reject the option of simplification (we do not want to alter register or discourse structure) and we fear that a glossary of 'difficult words' might distract learners and encourage them to concentrate on vocabulary rather than grammatical structures. Thus our next challenge is to improve accessibility, whilst maintaining relevance and authenticity.

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META-CITEC: a cognitive semantic database of conceptual metaphor in science and technology²

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Abstract

This paper describes the on line database META-CITEC, which develops a cognitive semantic analysis of metaphorical expressions and conceptual mappings in science and technology. This work is grounded on Cognitive Linguistics and the Conceptual Theory of Metaphor (Lakoff and Johnson 1980, Lakoff 1993), which studies mental operations and structures involved in language, meaning and reason. Although Cognitive Theory of Metaphor has been already applied to scientific language in different works (Boyd 1993, Knudsen 2003), more studies need to be conducted to establish the complex interactions within metaphorical networks in this field. The building process of METACITEC has been carried out in three phases: firstly, scientific and technical terms have been analysed from different reliable databases and sources by selecting those with a clear metaphorical wordbuilding; next, the most frequent sub- technical terms have been searched by means of the "Wordsmith" programme; finally, metaphorical terms have been categorised into the scientific databank according to the conceptual metaphors they manifest, establishing the source domains and the target domains, as well as the networks involved. The results of this paper shed light on the hypothesis of the metaphor-based conceptualization of scientific language, contributing to establish the role of metaphor in constructing new meaning within science and technology.

Introduction

The new electronic tool, META-CITEC consists of a cognitive semantic database containing both a dictionary of metaphorical terms and a glossary of conceptual metaphors providing the translation and definition of scientific and technical terms. Theoretically, this work is grounded on Cognitive Linguistics and the Conceptual Theory of Metaphor (Lakoff and Johnson 1989, Lakoff 1993), which studies mental operations and structures involved in language, meaning and reason. Cognitive linguistics contributes to the study of language and mind with a theory of semantics which develops from three basic principles:

² The terminological database METACITEC constitutes a research project financed by the regional government of Madrid and the Universidad Politécnica de Madrid. It is integrated into the research and development lines R+D (Research and Development) and belongs to the "IV Programa PRICIT" of Science and Society. Experiential Hypothesis (Johnson, 1987), the Cognitive Unconscious and the Theory of Metaphor (Lakoff and Johnson, 1980; 1999). The theory of metaphor explains the understanding of new areas or domains of experience through other more accessible domains, whilst cognitive theory—which studies mental operations and structures that are involved in language, meaning and reason—contributes with a theory of semantics which develops from basic level concepts, to image schemas and the operations used to manipulate them.

According to Lakoff and Johnson (1999), the three major findings of cognitive science are: (1) our mind is inherently embodied (Experiential Hypothesis); (2) thought is mostly unconscious and (3) abstract concepts are largely metaphorical. Today, it is generally accepted that these three findings can also be applied to scientific and technical language.

The Experiential Hypothesis (Johnson, 1987; 1997) is essential to understand the theory of metaphor. It assumes that meaning is grounded in and through our bodies, and much of our conceptual systems are either universal or widespread across languages and cultures. It maintains that central aspects of language arise from sensory, motor and other neural systems (Lakoff and Johnson, 1999). According to this theory, most abstract concepts are originated in pre-conceptual physical experiences. Johnson denominates them embodied schema o image schema (1987). The main preconceptual schemas (Lakoff, 1987: 267) are: the path schema, the container schema, the link schema, the force schema and the balance schema. Image schemas are one of the basic sources of metaphors (Ungerer and Schmid 1996). Thus, in Telecommunications, examples of metaphors based on pre-conceptual schemas are "high" and "low" applied to frequencies (originated in the up and down schema) whilst examples of metaphors based on basic physical experiences are "light is a pulse" and "light is absorbed".

The Cognitive Unconscious theory is based on the assumption that most of our thought operates beneath the level of cognitive awareness. This explains the fact that, for many scientists and experts, most of the lexicalized metaphors analysed in this study are not considered as such.

With respect to the third assumption or principle of cognitive theory, that is, abstract concepts are largely metaphorical, this approach considers that metaphor and metonymy are two basic mechanisms for understanding and categorising the world, as well as an important and decisive tool in human capability of inferring and reasoning. It distinguishes three types of metaphors: conceptual metaphors, metaphorical expressions and image metaphors. Conceptual metaphors operate in our thought and can be defined as "a cross-domain mapping in the conceptual system" (Lakoff 1993: 203). Metaphorical expressions operate in our language and consist of particular words or phrases which can express a conceptual metaphor. Finally, image metaphors map only one image onto another. This image is usually visual. An example of an image metaphor in science is "big bang".

Several authors highlight the importance of metaphor as a constituent part of scientific discourse (Collin and Gentner, 1995; Duque García, 2000; Durán et al. 2005). Today, the cognitive theory of metaphor has been applied to the study of theory building in different scientific fields (Salager-Meyer 1990, in Medicine; White 1997: 2004, in Economy: Cuadrado and Berge 2005, in Physics; Roldán and Úbeda in Civil Engineering). However, although Cognitive Theory of Metaphor has been already applied to scientific language in different works (Boyd 1993, Knudsen 2003), there is a need to conduct more studies that allow to establish the complex interactions within metaphorical networks in this field. Therefore, we have developed META-CITEC, whose final purpose is to establish the role of metaphor in constructing new meaning within science and technology by determining the metaphorical mapping underlying this specific language, as well as to analyse the complex interactions within metaphorical networks found in this field.

Methodology and Description of the Corpus

The building of this electronic tool has been carried out into two different stages: (1) Creation of a bilingual dictionary of metaphorical terms; (2) Creation of a glossary of conceptual metaphors.

Creation of a bilingual dictionary of metaphorical terms:

At a first stage, different technical dictionaries were read and interpreted in order to select all these terms in which metaphor is involved. The corpus was selected from many sources and Electronic dictionaries on the web. All the terms selected from the technical dictionaries analysed constitute technical or subtechnical vocabulary, i.e. they appear systematically in this specialised language and in all of them metaphor is involved in their formation. To identify the cases of technical metaphors, i.e. subject-specific language which probably may not be classified as metaphors by experts in the field, a thorough reading was carried out. All those entries involving a mapping of any sort were considered in the broadest sense as metaphors and, therefore, analysed and interpreted. First, the word was defined in general English and then, it was defined in the specific field of science and technology, thus establishing the conceptual mappings found. Then, data were annotated on various semantic levels: derivatives, compounds, related terms and type of metaphor. Finally, examples were provided to illustrate them.

With the purpose of contextualising the metaphorical terms, this research group is currently creating a corpus of relevant scientific and technical written texts containing more than 4 million words from the following scientific fields: telecommunications, agriculture, earth sciences, mining and aeronautics. Nowadays, corpus-based research has become one of the major paradigms in linguistics. Corpora not only

make it possible to analyse the use of metaphorical terms within their own context, but also favour the identification of those semitechnical metaphors which are usually generated by other metaphors in real communication. Those terms will probably not be recorded in most specialized dictionaries. The analysis of the association of words and lexical constellations will provide basic information about the potential of metaphor to generate new metaphors and serve as a cognitive model in language and thought.

Creation of a glossary of conceptual metaphors:

The dictionary of metaphorical terms created by this project will provide the grounds to explore and determine the conceptual metaphors and mappings which give support to the language of science and technology. In this glossary, for a given metaphor, there is a page specifying the type of metaphor itself as well as the source domain, the target domain and the metaphorical terms involved in the conceptual metaphor. This analysis demonstrates that the metaphorical lexical units are not isolated and independent one from another but in many cases constitute connected complex semantic networks. Thus, in the field of telecommunications, words like circuit, pathways, routes, or channel are a part of the conceptual mapping: <TRANSFER OF INFORMATION IS TRANSPORT OF GOODS>.

Results and Discussion

The present version of METACITEC is expected to be launched publicly on the Web at the end of this year. In the run-up to the launch, this paper has discussed the linguistic approach to terminology proposed, introduced the corpus, focussing in particular on the cognitive approach research, and outlined the building up process of this Web application. METACITEC determines not only the translation and the definition of scientific and technical terms but it also establishes the metaphors underlying the conceptual systems analysed. Consequently, it also provides patterns to be used for the analysis and creation of new scientific and technical terms. The major contribution of this electronic tool is the creation of a bilingual new dictionary of lexical units which contains more than 3.000 metaphors related to the field of science and technology. This dictionary made it possible the elaboration of the glossary of the conceptual metaphors that draw upon a variety of basic conceptual domains, among which the land and sea transport of goods metaphors in the field of telecommunications was shown to illustrate the thesis that this view of science facilitates the cognitive handling and manipulating of scientific and technical concepts.

Conclusions

Research is in progress and final results are expected to confirm the theory that scientific metaphors are based on human basic experiences, basic level categories and image schemas. It is also expected to show that conceptual metaphors provide mental models in science and technology, some of which have been developed to illustrate this thesis. As has been

demonstrated, most of them are not independent, but constitute connected complex semantic networks. All this contributes to confirm the thesis that human reason is not purely literal, but largely imaginative and metaphorical.

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Speaking Out! Developing, evaluating, and piloting learning outcomes

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Introduction

As a result of the political objectives set in the Bologna Declaration of 1999 to the higher education sector, all European universities are in process of reforming their Curricular before 2010 since the new European Credit Transfer System (ECTS) will be established by this year. This means that the Engineering degrees will adopt a two-cycle scheme of 4+2 years and that the university teachers are contemplating the introduction of competencies and learning outcomes, which theoretically should cause a major change of focus in higher education from teaching to learning.

As a response to this, the Research Group DYSCIT within the UPM and according to the Common European Framework of Reference for Languages: Learning, Teaching and Assessment is developing an Academic and Professional English Portfolio focussing on the linguistic descriptors related to the categories and the skills created in accordance with the professional and academic needs of engineers and architects. This ELP, which is a pedagogic tool to help learners to carry out self-assessment, to plan their learning and to report their ability to communicate in languages (Council of Europe, 2001), is based on two important pillars which are relevant to establish the basis of conscious and reflexive learning: the concept of genre (Swales 1990; Bhatia 1993) and the notion of ESP (Hutchinson & Waters, 1987; Belcher, 2006) being both often identified with ESP itself (Cheng, 2006). Although many versions of the ELP have been developed, a repeated complaint among university instructors is that the existing versions do not take into account the special aspects of language learning and use in the university context.

Background

According to the Bologna Declaration of 1999, all European universities are in process of reforming their Curricular. In the case of Spain, conferences, symposiums, projects have been carried out in order to debate and to implement the new education system. For the UPM (Polytechnic University at Madrid), these reforms mean the development of programmes which are commensurate with new outcome approaches that use levels, levels descriptors, qualifications descriptors, learning outcomes and can more fairly consider the totality of student workload in terms of credits.

An illustration of the complex relationship between credits and learning outcomes is the Common European Framework of References for Languages whose framework distinguishes levels from A1 (very basic) to C2 (near native). These levels are described in learning outcomes expressed in terms of competences. In this line, the Research Group DYSCIT according to the Common European Framework of Reference for Languages: Learning, Teaching and Assessment is developing an Academic and Professional English Portfolio focussing on the linguistic descriptors related to categories and skills -Listening, Reading, Spoken Interaction, Spoken Production and Writing. Following Little (2005), who claims that "the ELP supports reflective learning in which goal setting and self assessment play a central role", our research group has developed a version of the ELP which takes into account the specific needs of our engineering and architecture students at Universidad Politécnica de Madrid.

The aim is to implement this ELP for Engineering and Architecture in the English language courses, either being compulsory or optional, which have been given in all 20 engineering schools of this University for more than two decades. The students of these engineering degrees have completed several general English subjects at secondary school with varied levels of attainment. The majority have obtained a preintermediate or intermediate level of English (A2, B1, B2) according to the results provided by the Oxford Placement Test.

In our opinion, the ELP is a valuable document to encourage learners, on the one hand, to become autonomous, recording and reflecting on their language learning and cultural experiences and on the other, to be life-long language learners. As Little (2005) points out "a capacity for accurate self-assessment is an essential part of the toolkit that allows learners to turn occasions of target language use into opportunities for further explicit language learning". The ELP has two fundamental functions: the first one is to motivate, to guide and to support the student in the process of learning, and the other is to record proficiency language levels.

It reflects what learners learn, what they have to learn for their professional goals and how they learn it in the ESP genre-based framework. This responds to Cheng's (2006) claim who points out the necessity for intensive efforts to study learners and learning in the ESP genre-based approach. One way of doing it is by implementing Language Awareness approach, which according to the same author relies on the learners paying conscious attention to instances of language in an attempt to discover and articulate patterns of language use.

Speech genres (Belcher, 2006: 147), which are the focus of this study and which are important for our learners' professional future, have significant roles to play inside and outside of academia. Our students need instructional practices of oral speech for various reasons: First, because the transactional function of oral language is of extreme importance for the development of their careers, both as engineers and as executives; secondly, because of the complexity of

learning to speak in another language, since it is necessary to attend simultaneously to content, morphosyntax and lexis, discourse and information structuring, the sound and prosody, as well as to appropriate register and pragmalinguistic features (Hinkel, 2006) and finally because not even native speakers acquire the transactional function of the language automatically.

Methodology

The research group is made up of English teaching staff and researchers from the following degree programmes: Architecture, Civil Engineering, Mining Engineering, and Agricultural engineering Aeronautical Engineering. This wide range of teaching content areas motivated us to develop a bank of learning competencies instead of a set list since different language programmes at different schools emphasize different competencies in their course objectives. The competence bank can serve two major pedagogical purposes. Primarily, a detailed list of language competencies to be used for student self assessment: to guide them through the learning process, to identify and set goals and to assess their learning progressively inside and outside the educational framework by promoting self directed learning. A second rationale for developing the bank would be to provide an interface between language learning, teaching and assessment. Learning outcomes will be a pedagogical resource for teachers to determine the key purposes of the course set and a practical tool for students to take control of their learning processes under the teacher's guidance. Students do not become self directed learners instantaneously. They need opportunities as well as clear directions and careful planning in many instances (Bary and Rees, 2006, Little, 2005).

Another function of the detailed descriptions of language competencies is their use in reporting language level proficiency for other educational contexts or future employers, thus, promoting mobility throughout Europe and internationally. This should be done in the context of external reference points (qualification descriptors, level descriptors, and benchmark statements). The Common European Framework of languages (Council of Europe 2001) was chosen as our external reference point. The CEF provides a practical tool for setting clear standards to be attained at successive learning stages and for evaluating outcomes in an internationally comparable manner. It is divided into 6 levels clustering into 3 bands: A1-A2 (basic user), B1-B2 (independent user), and C1-C2 (proficient user).

Two studies were carried out at the Universidad Politécnica de Madrid. One of them involved EAP/EST instructors and the other, students enrolled in two different engineering university schools. The main objective of these two studies was to analyze different aspects of the speaking outcomes created for the inclusion in the European Language Portfolio for Engineering students. In particular, we were interested in studying if the descriptions of the learning outcomes

were clear enough to be understood by the students, if they were calibrated appropriately for the level where they had been included and finally, if they were meaningful for the students. Additionally, we tried to determine which factors are involved in a well written, well calibrated or in unsuccessful learning outcomes.

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"Isn't it enough to be a Chinese speaker": language ideology and migrant identity construction in a public primary school in Beijing

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Schools, and the educational system in general, are among the key institutions that embody dominant social values and reproduce social hierarchies in a seemingly neutral form. In schools pupils from diverse social and linguistic backgrounds enter into interaction with one another and with practitioners on a daily basis. The microscopic linguistic differences that occur in such interactions often index cultural metapragmatic factors at a language-ideological level and serve as a ground of the dialogical process of identity construction among pupils. In schools, as well as in other social context, diversity is an increasingly salient feature of China's linguistic and sociolinguistic landscape as the mass internal migration results in rapid linguistic exchanges among members of various communities.

Since the early 1980s rural Chinese have relocated to the urban areas in search of jobs and of better life opportunities; the past two decades witness an intense migration in scale and speed. It is facilitated by the rapid economic and social changes both from inside China, and with China's participation in the globalisation. Urban public schools that used to admit mainly local children are now populated with both local and migrant children who bringing in different social, linguistic and cultural backgrounds. When 'big' identity features such as nationality and ethnicity are shared, often as a result of political or ideological principles, 'small' differences such as accents and dialects become salient features that allow peers and teachers to differentiate between 'us' and 'them' (Blommaert, Creve & Willaert 2006). Difference is often converted into inequality, which in turn may leave marks on migrant children's identity as well as on their opportunities in life (Dong & Blommaert 2007).

To explain how linguistic features function as identity markers in a Beijing public school, the paper draws upon the concepts of indexicality, ethnolinguistic identity, and speech community, and posit the arguments in the theoretical frame of language ideology (Gumperz 1968; Silverstein 1996, 1998; Rampton 1998; Blommaert 2005, 2006). On the basis of ethnographic observation and metapragmatic interviews, three examples were presented to demonstrate how small features of language become emblematic of individual and group identities, and such identities can be an impact on the appraisal of migrant pupils' performance at school as well as in frames of a macro-political order invoking homogeneism within

the dominant language ideologies in education which often emphasising linguistic uniformity and homogeneity. (Blommaert & Verschueren 1998).

In the first example I observed a drawing class at a Beijing primary school during which a migrant pupil articulated a metapragmatic discourse on her and her peer's identities. It was clear that she was aware of her rural origin and of the negative images it projected. However, she overlaid this migrant identity with a national identity by 'isn't it enough that we are all Chinese? See we all speak Putonghua'; this utterance pointed to a stable identity category through the claimed belonging to a homogeneous language community. This identity is bespoken through the language - Putonghua, what Hymes calls a 'one language-one culture' assumption which argues that 'the ethnographic world can be divided into "ethnolinguistic" units, each associating a language with a culture' (1968:25). Notice that it was perceived as natural, by a migrant pupil, rather than a dominant one such as a local pupil or teacher in the social space. The move towards a homogeneous 'national' identity layer is, as Bourdieu (1987) argues, an example of the social structures internalised in people. Thus 'even the most disadvantaged, tend to perceive the world as natural and to find it much more acceptable than one might imagine' (Bourdieu 1987:520).

The taken-for-granted disposition takes the shape of an orientation towards Putonghua in the first example, and this is echoed in the second and the third examples, both of which are metapragmatic discourses on migrant pupils' language and identities. The second example showed how a migrant child's language was evaluated and disqualified, and how she was 'grouped' into a community of 'non-Beijing speakers' which therefore ascribed a migrant identity to her on the basis of her local peer group criteria through a metapragmatic discourse on her language. Her provincial accent indexed and was emblematic of her identities of being rural origin, migrant to the city, unsophisticated and less intelligent. It is an 'abnormal' accent, bespeaking an 'abnormal' identity.

The third example examined a teacher's comments on her pupil's identity, language, and performance. Here we saw small features of language again becoming markers of individual and group identities, and such identities have an impact on the appraisal of migrant pupils' performance at school. Within the monoglot ideology, all the indexical values of migrant pupils' language are not made explicit; they simply take the form of being 'incorrect'. Their language is 'incorrect', and therefore their performance is negatively influenced by their 'incorrect' language if they are not able to adjust to the 'correct' form. The evaluation of the migrant pupil's performance was done in a seemingly neutralised way, with positive comments on her cognitive ability; however, her language played a role in the appraisal and as her teacher pointed out, she could be a 'better' student if she spoke the 'correct' language. It is clear that school institutionally supports the language ideology with Putonghua at the centre and at the same time reproduces the dominant social values and hierarchies.

What I hope to show in this paper is the construction of migrant identities through metapragmatic discourses of migrant pupils, their local peers, and teachers in the context of linguistic complexity and population movement in China. Despite the remarkable sociolinguistic diversity, ideologies of homogeneity and uniformity penetrate public discourses as well as institutional discourses such as in schools. The monoglot language ideology in China often revolves around Putonghua - an association that feeds into the 'one language-one culture' assumption and results in an imagined singular, clear and stable ethnolinguistic identity. In the actual linguistic exchanges, however, the one-to-one relationship is blurred when we observe that multiple 'languages', 'dialects' or 'accents' are deployed as a linguistic repertoire of migrants, that various speech communities share one 'language', and such communities are defined in relation to the sharedeness of indexical values. The concepts of speech community, ethnolinguistic identity and indexicality allow me to look beyond established categories such as 'language' and 'dialect' into the real linguistic occurrences and their effect on school pupils' individual and group identities. The three examples presented in the paper demonstrate the application of such a linguistic anthropological approach in an attempt to address the real social impact of linguistic diversity. In spite of the dominance of in a largely egalitarian ideology of China, where the informants of the three examples do not acknowledge the social distance between the migrant and the local in the school, the migrant pupil's self-claimed identity in the first example is denied by the local pupil and the local teacher. The observation in this paper leads us to study the population movement at the macro level from a perspective of 'small' linguistic features and individual identity at a micro level, and to gain an insight of the social structure that is produced and reproduced through practices such as interactions at school.

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An Empirical Study of Effective Corrective Feedback Strategies with Implications for Technological Applications in Applied Linguistics ³

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Introduction

A major focus of research in Intelligent Tutoring Systems (ITS) has been devoted to the identification of feedback strategies that best facilitate student learning. Much of this has studied one-on-one tutorial interactions in sciences domains. In contrast, relatively little effort has been devoted to understanding effective feedback strategies for foreign language teaching. ITS for foreign language learning incorporated NLP techniques to analyze learners' language production or model their knowledge of a foreign language, in order to provide learners with flexible feedback and guidance in their learning process. These systems use parsing techniques to analyze the student's response and identify errors or missing items. This allows systems to produce sophisticated types of feedback, such as meta-linguistic feedback and error reports, to correct particular student errors (Dodigovic, 2005; Trude & Schulze, 2007). The results of a previous observational study (Ferreira, 2006) suggest that for grammar and vocabulary errors, an ITS for Spanish and English as foreign language should implement ways to prompt students' answers using meta-linguistic cues, elicitation and clarificationrequests. The prompting strategies seem to promote more constructive student learning in a tutorial context (Chi, Siler, Jeong, Yamauchi & Hausmann, 2001) because they encourage the student to respond more constructively than when the teacher gives a simple repetition of the answer or a correction of the error. In order to determine whether this tendency can be experimentally demonstrated, we carried out a longitudinal experiment on grammar teaching.

The research within which this study is situated seeks to gain an understanding of feedback in foreign language teaching with the aim to develop useful ideas for exploitation in the design and implementation of future Technological Applications in Applied Linguistics (Kaplan, 2002). The results of an observational and tutorial studies (Ferreira, 2003; 2006) suggest that for grammar and vocabulary errors, an ITS for a foreign language should implement ways to prompt students' answers using meta-linguistic cues, elicitation and clarification-requests. There is a tendency for Prompting Answer Strategies feedback (PAS) to be more effective than Giving Answer

Strategies (GAS) for dealing with grammar errors (Lyster & Ranta, 1997; Lyster, 2004). Indeed, the prompting strategies seem to promote more constructive student learning in a tutorial context (Chi et al., 2001) because they encourage the student to respond more constructively than when the teacher gives a simple repetition of the answer or a correction of the error. This paper aims to inform the design of feedback strategies in CALL and ICALL systems for Spanish and English as a Foreign Language. We explore empirical evidence about effectiveness of feedback strategies used in an experimental study (pre, post and control groups) in which 60 students interacted with a web-based tutoring program (elearning platform). To provide guidelines for researchers developing feedback strategies for CALL and ICALL designers, we studied corrective feedback strategies. Two groups of strategies were considered: Group 1 which includes recast, and explicit correction, and Group 2 which includes meta-linguistic cues or useful information about the error (without repeating the error), elicitation of the student's answer (without giving the answer) and clarification of the errors. The results of our study suggest that: Group 2 is more effective for dealing with grammatical errors of the students. We suggest that a CALL and ICALL system for Spanish and English as a foreign language should implement feedback which prompts students for answers.

Corrective Feedback in Computer Assisted Language Learning and Intelligent Computer Assisted Language Learning (ICALL)

The design of ICALL systems is founded on two fundamental assumptions about learning. First, individualized instruction by a competent tutor is far superior to the classroom style because both the content and the style of the instruction can be continuously adapted to best meet the needs of the situation. Secondly, students learn better in situations which more closely approximate the situations in which they will use their knowledge, i.e. they learn by doing, by making mistakes, and by constructing knowledge in a very individualized way. Initially, the feedback produced by Computer-Assisted Language Learning (CALL) systems was limited to simple error messages, using a "wrong-try-again" approach to interaction that offered little information about the nature of the learner's errors. According to Garret (1995), four types of feedback are proposed for treatment of error:

- Feedback that presents only the correct answer.
- Feedback that pinpoints the location of errors on the basis of the computer's letter-by-letter comparison of the student's input with the machine's stored correct version (pattern markup).
- Feedback based on analysis of the anticipated wrong answers. Error messages associated with possible errors are stored in the computer and are presented if the student's response matches these possible errors (error-anticipation technique).

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- Feedback based on an NLP approach, such as the "parsing" technique, in which the computer does linguistic analysis of the student's response comparing it to an analysis derived from the relevant grammar rules and lexicon of the target language, and identifies problematic or missing items of the student's response. CALL systems cannot handle the four types of feedback suggested by this classification, due to the fact these systems cannot analyze the student's answer nor explain why the response is wrong. ICALL systems have incorporated NLP techniques e.g., analyzing language learners' language production or modelling their knowledge of a second language to provide the learners with more flexible feedback and guidance in their learning process (Dodigovic, 2005; Levy & Stockwell, 2006; Trude & Schulze, 2007).

The Experimental Design

The experimental study seeks to obtain empirical evidence for the effectiveness of feedback strategies to learn the Spanish subjunctive and the English past tense. The experiment consisted of a pre-test/post-test/ control-group design. In accordance to Focus on Form teaching approach, we asked the teachers to suggest a grammar topic suitable to their students' grammar needs. They suggested the subjunctive mood and hence we selected some aspects of the subjunctive mood of Spanish as features to be learned or improved through the treatment process. Research from the SLA literature suggests that the majority of students could potentially benefit from a push to target accuracy and the development of a task in the context of a "focus on form" approach by being provided with a natural context for the use of the form (Doughty & Varela, 1998). To design the materials and procedures for this experimental study, we developed a teaching component concerning aspects of the subjunctive mood that would help learners to improve their grammatical skills in various ways. This component considered PAS (elicitation and meta-linguistic cues) and GAS (repetition of error and correction) for corrective feedback. For correct answers, acknowledgments were considered. The present study addresses the research question: Are PAS or GAS feedback strategies more effective for teaching the Spanish subjunctive mood and the English past tense to foreign language learners? by addressing the following hypotheses:

Hypothesis 1: After the pre-test and during the three treatment sessions, learners who receive PAS feedback strategies after their subjunctive and past tense errors will show greater ability to produce this mood and tense correctly than learners not exposed to this type of feedback strategies, as measured by pre-test post-test gain scores.

Hypothesis 2: After the pre-test and during the three treatment sessions, learners who receive GAS feedback strategies after their subjunctive and past tense errors will show greater ability to produce this mood and tense correctly than learners not exposed to this type of feedback

strategies, as measured by pre-test post-test gain scores.

Hypothesis 3: After the pre-test and during the three treatment sessions, learners who receive PAS feedback strategies after their subjunctive and past tense errors will show greater ability to produce this mood and tense correctly than learners who receive GAS feedback strategies, as measured by pre-test post-test gain scores.

Participants

Two groups of students participated experimental study, a group for Spanish and a group for English as a FL: The English group was composed of thirty students from a 20 to 23 years old. They were students of English as a FL from the University of Concepción, with an intermediate competence level. The Spanish group was composed of thirty students from a 18 to 23 years old. They were students of Spanish as a FL from Saint Cloud state university, Minnessota, with an intermediate competence level. The participants have Spanish and English as their first language, respectively. The Participants of Spanish and English groups were randomly assigned to form three groups of ten students each: PAS Experimental Group, GAS Experimental Group or Control Group.

Web-based Tutor Interface for Data Collection

An experimental web tutor interface was designed for students to do the tests asynchronously. The students did not receive instruction on the subjunctive mood or past tense immediately before the experiment. All students did same sessions and worked with the same material, the only difference was about feedback strategies that they received (PAS, GAS acknowledgment). The students were invited by email to participate in a series of activities to practise their Spanish and English and get useful tourist information about Chile. The interaction begins with a starting page giving instructions about the experiment as a whole and a personal data entry form. As a student first enters his/her personal details, these are registered and the student is automatically assigned to one of the three experimental groups: GAS, PAS or Control. In order to keep a balanced sample as much as possible, students are assigned to groups in the following way. The first one receives PAS, the second one receives GAS, the third receives Control feedback, the fourth one receives PAS, and so on. Next, the student starts answering the 10-question pre-test in which the first 5 are fill-in-theblank questions, and the rest are multiple-choice questions. Since the students finish the activities at different rates, an internal state register is enabled to allow the students to move on at their own rhythm. Once a student starts answering a question, the feedback is provided depending on the type of error that occurred. In case a student interrupts his/her current activity/test, the state is kept so the next time he/she accesses the experiment, it will be started from the point where he/she left off last time. Since the students finish the activities at different rates, an internal state register is enabled to allow the students to move on at their own rhythm. There are no time restrictions in which the students must respond, so they are allowed to spend all the time they need. For this, separate registers of each student's responses are kept to detect early individual difficulties. The interface provided vocabulary hyperlink facilities to help students when necessary in order to isolate vocabulary comprehension issues beyond the scope of the experiment.

Results: Effectiveness of GAS and PAS

The experiment entailed an independent variable and a dependent variable. The independent variable was the group: (1) the PAS group; (2) the GAS group; (3) the control group. The dependent variable was the difference scores that participants earned between their pre-test and post-test scores.

Results for Hypothesis 1

With regard to our first hypothesis, table 1, 2,3 y 4 show the different scores between the pre-test and post-test for the PAS and control groups for Spanish Group. As can be seen, the progress made by the PAS group was much more substantial. This suggests that the participants showed steady improvement in accuracy on the subjunctive mood in the syntactic frames involved.

Table 1: Pre-test & Post-test Results for Spanish Control Group

Span.Control	S1	S2	S3	S4	S5	S 6	S7	S 8	S9	S10	Total	Av.
Pre-test	4	6	3	7	4	4	5	9	3	2	47	4.7
Post-test	9	7	4	8	4	4	5	8	1	1	51	5.1
Diff.	5	1	1	1	0	0	0	-1	-2	-1		0.4

Table 2:

Pre-test & Post-test Results for Spanish PAS Group

Span.PAS	S1	S2	S 3	S4	S5	S 6	S7	S 8	S 9	S10	Total	Av.
Pre-test	1	2	2	5	2	3	4	5	2	3	29	2.9
Post-test	0	1	1	2	0	3	4	8	4	7	30	3.0
Diff.	-1	-1	-1	-3	-2	0	0	3	2	4		0.1

Table 3: Pre-test & Post-test Results for English Control Group

Eng.Control	S1	S2	S 3	S4	S5	S6	S7	S8	S 9	S10	Total	Av.
Pre-test	7	9	6	5	5	7	7	4	6	3	59	5.9
Post-test	6	8	2	4	4	7	7	4	7	4	53	5.3
Diff.	-1	-1	-4	-1	-1	0	0	0	1	1		-0.6

Table 4:

Pre-test & Post-test Results for English PAS Group

Eng.PAS	S1	S2	S 3	S4	S5	S 6	S 7	S 8	S 9	S10	Total	Av.
Pre-test	4	4	6	1	9	4	2	6	7	8	51	5.1
Post-test	9	6	8	8	10	8	7	6	7	7	76	7.6
Diff.	5	2	2	7	1	4	3	0	0	-1		2.5

Results for Hypothesis 2

Concerning our second hypothesis, the results in Tables 1 vs. 5 and Tables 3 vs. 6 suggest that the

progress made by the Spanish GAS group was better than the control group.

Table 5:

Pre-test & Post-test Results for Spanish GAS Group

Span.GAS	S 1	S2	S 3	S 4	S5	S 6	S 7	S 8	S 9	S10	Total	Av.
Pre-test	1	2	2	5	2	3	4	5	2	3	29	2.9
Post-test	0	1	1	2	0	3	4	8	4	7	30	3.0
Diff.	-1	-1	-1	-3	-2	0	0	3	2	4		0.1

Table 6:

Pre -test & Post-test Results for English GAS Group

Eng.GAS	S1	S2	S3	S4	S5	S 6	S 7	S8	S 9	S10	Total	Av.
Pre-test	2	4	6	5	5	4	9	8	8	5	56	5.6
Post-test	3	8	9	6	5	4	8	8	8	4	63	6.3
Diff.	1	4	5	1	0	0	-1	0	0	-1		0.7

Results for Hypothesis 3

In accordance with hypothesis 3, Tables 2 vs. 5 and Tables 4 vs. 6 show the difference scores between pretest and post-test for the PAS and GAS groups. As can be seen, the progress made by the PAS group was better than the GAS group. This suggests that participants who received PAS after their subjunctive and past tense errors showed an improvement in accuracy with this mood.

Conclusions and Implications for Technological Applications in Applied Linguistics

After the three-week treatment process, students who worked with strategies aiming at extracting or eliciting the answer regarding the sequence of tenses or subjunctive clauses were statistically more effective (Spanish Group T.Test=0.7; English Group T.Test=0.1) in producing correct forms in contexts where the subjunctive mood or past tense were required. In general, results suggest that Prompting strategies (meta-linguistic cues, clarification request & elicitations) supported the learning process of the subjunctive and past tense for Spanish and English) more successfully than GAS strategies (error repetition & explicit correction). This suggests that participants who received PAS after their errors showed an improvement in accuracy in these structures.

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Conflict of cultures – the beginning of a new awareness

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It is widely accepted that knowledge is socially constructed (Bruffee 1986; Bazerman 1988, 1990, 1998) and that this leads to variation between the rhetorical choices and academic writing conventions adopted in different disciplinary discourses (Hyland 2000). This paper considers responses to a language awareness raising course on reading academic English, which was held in a college of agriculture in Portugal.

First, this paper discusses three common associations of the term culture in English for Academic Purposes / English for Specific Purposes contexts – ethnic culture (Flowerdew and Miller 1995), contrastive rhetoric (e.g. Kaplan 1988; Mauranen 1992, 1993; Cmejrková 1994, 1996; Connor 1996) and disciplinary culture (Flowerdew and Miller 1995; Myers 1995: 5). However, in this paper only contrastive rhetoric and disciplinary culture are considered.

The course attempted to meet the needs of students and lecturers who are obliged to read academic texts in English and also to address the difficulties they are faced with. It thus attempted to raise awareness of the relationship between text form, writer's purpose(s) and social context and to show how writer/reader relationships and roles underlie the linguistic devices chosen. The course consisted of 9 two-hour units, each one corresponding to a two-hour lesson with a similar structure covering 9 different topics. The participants in the course were all volunteer - 20 Portuguese agriculture students and 15 lecturers from the college of agriculture of the Polytechnic Institute of Castelo Branco, Portugal. In this study, the construct proficiency in English as a foreign language was measured using a cloze test (lent by the Edinburgh Project on Extensive Reading - Placement Test Testpack A 1990/1995). Lecturers were more homogeneous in their scores and also showed a higher proficiency in English than students (Figueiredo-Silva, 2003).

A range of qualitative and quantitative data before, during and after the course was collected. However, the present paper only analyses data that led participants to reflect on language, texts and knowledge/science. In addition to the cloze test, such data included the lessons feedback questionnaires, interviews and post-course questionnaire (Figueiredo-Silva, 2003).

This paper attempts to show how differences in educational and disciplinary backgrounds affected the way the course ran. During the course and/or after the course, participants reflected upon and pointed out some differences between academic writing in English and in Portuguese such as explicitness as a rhetorical strategy in English; different word order in English and Portuguese; a more nominal style in academic English; and even cross-cultural differences within academic texts written in English. However, participants' comments on the above mentioned issues were not very clear or well-organised, as if participants had difficulty in pinpointing exactly what these differences were. Two related points may account for this difficulty. On the one hand, participants came from a different disciplinary culture and had different approaches and concerns about reading. On the other hand, some had not reflected about or thought of these differences between English and Portuguese academic discourse before. Moreover, they were not used to thinking critically about language and texts.

Second, the view that readers have to dig out the meaning of the text may be linked to the fact that, when reading, participants usually remained at the ideational level (Halliday 1973) of texts. They were not used to noticing the interpersonal aspect of texts nor were they aware that English is a writer-responsible language. Participants' initial perspective on reader orientation, based on their L1 reading experience, was that the reader alone is responsible for understanding texts. However, as they became gradually aware of the differences between academic genres and began to notice the discourse features and the academic writing conventions discussed in the lessons, their perception of the writer's role changed. Participants realised that in English the writer is responsible for effective communication and that this is achieved through the writer's rhetorical preference for a reader-oriented attitude, which may facilitate reading.

Third, it is discussed how the attitudes of participants seemed to differ from those of the course designer/teacher because of their contrasting educational backgrounds and fields of research (i.e. they came from the hard sciences while the designer/teacher's from background was the humanities and social sciences). The participants' view of knowledge was positivist and empirical. Thus they most likely perceived academic 'photocopies'/'photographs' of reality. texts as Language for them is just a tool to express the truth found in nature and texts are faithful representations of the world. The course designer/teacher's view, on the other hand, drew mainly on a social constructionist perspective accepting that knowledge within scientific discourse communities is also constructed (e.g. Kuhn 1970; Knorr-Cetina 1981; Latour and Woolgar 1986; Myers 1990) and academic texts are 'sites of disciplinary knowledge-making' (Hyland 2000: 104)

Finally, drawing on the insights gained from participants' feedback and their performance of the course a few suggestions are made on how these differences could be addressed. The Portuguese learners were found to hold different views from the course designer/teacher. This manifested itself in their opinions on language (i.e. the linguistic conventions of academic English and Portuguese), texts (i.e. crosscultural aspects of writing and reader orientation) and science (i.e. its textual status as reified entity or constructed position) (Figueiredo-Silva, 2003). It is proposed that these divergences in perspective are grounded in the different disciplinary cultures to which learners and the researcher/teacher respectively belong and it is suggested that, by making students more familiar with the generic discourse features of academic texts in English and by developing their understanding that, as human creations, texts always carry values, a language awareness approach both facilitates the reading of English academic texts and improves participants' ability to deal with alternative sets of values or discourse conventions.

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Do Supportive Moves and Pictographs Mitigate the Request Force?

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Introduction

This study investigates Japanese requests collected through e-mail, focusing on supportive moves and pictographs. Six supportive moves (preparator, getting a precommitment, grounder, disarmer, promise of reward and imposition minimizer) classified by Blum-Kulka, et al. (1989) were used in this study. This research investigates the relationship between the use of supportive moves/pictographs and the following: power difference and distance between a speaker (S) and a hearer (H), the degree of imposition, and the (in)directness of the request strategies (head acts).

Data Collection

69 Japanese university students collected a corpus of email messages, containing requests. As a result, 969 requests were collected.

Data Analyses

- (1) The data were first classified into (1) those with and without supportive moves and (2) those with and without pictographs, and the frequency of the use of (1) supportive moves and (2) pictographs was calculated.
- (2) The data were analyzed with a combination of the power difference, the distance between S and H and the degree of imposition, which resulted in the following twelve conditions:

Condition	Power	Distance	Imposition
	Difference		
1	+ (S>H)	+	High
2	+ (S>H)	+	Low
3	+ (S>H)	-	High
4	+ (S>H)	-	Low
5	+ (S <h)< td=""><td>+</td><td>High</td></h)<>	+	High
6	+ (S <h)< td=""><td>+</td><td>Low</td></h)<>	+	Low
7	+ (S <h)< td=""><td>-</td><td>High</td></h)<>	-	High
8	+ (S <h)< td=""><td>-</td><td>Low</td></h)<>	-	Low
9	-	+	High
10	-	+	Low
11	-	-	High
12	-	-	Low

Power +: There is a power difference between S and H. S>H: S has more power than H. S<H: H has more power than H.

The number of (1) supportive moves and (2) pictographs in each request strategy (head act) was counted, and the kinds of (1) supportive moves and (2) pictographs were investigated along with the head acts.

(3) The data were analyzed with a combination of (1) supportive moves and the gender of the sender and the receiver of the e-mail messages and a combination of (2) the pictographs and the gender of the sender and the receiver of e-mail messages.

Results

Supportive Moves

- (1) 66.0% of the requests collected in this study were made with supportive moves.
- (2) The supportive moves were most frequently (90.0%) used under condition 5 (P+: S<H; with distance and high imposition). However, the supportive moves were also used relatively frequently (66.0%) under condition 12 (no power difference, no distance and low imposition).
- (3) With relation to head acts, there were no major differences in the number of the supportive moves used among eight request strategies. The number of supportive moves found in the data did not exceed four in all the head acts, and one supportive move (44.7%) was used most frequently along with head acts overall. As for the kinds of supportive moves, grounders were most frequently used along with all the head acts.
- (4) There were no major gender differences in the use of supportive moves, grounders being most frequent.

Pictographs

- (1) 66.4% of the requests were made with pictographs.
- (2) The pictographs were most frequently (71.5%) used among equals (no power difference). There were no major differences in the use of pictographs with regard to the distance between S and H and the degree of imposition (with distance: 62.8%; no distance: 67.1%; high degree of imposition: 64.3%; low degree of imposition: 67.4%).
- (3) The number of pictographs used in each request did not exceed six. One pictograph was most frequently (38.3%) used. The kinds of pictographs found included genuine pictographs (e.g., heart marks, meaning happy), emoticons (e.g., expressing happy face) and signals (e.g., the arrow going down, meaning a bow used with an apology). Pictographs were most frequently used along with the head act, P (positive politeness) 2* (36.8%). The kinds of pictographs used with P2 were genuine pictographs (37.2%), emoticons (38.5%) and signals (26.3%). *Head acts, i.e., bald-onrecord (B), positive politeness (P), negative politeness (N) and off-record strategies (O), were divided into two, depending on the (in)directness and the (in)formality. Therefore, there are B1, B2, P1, P2, N1, N2, O1 and O2 as request strategies.
- (4) The female participants used more pictographs than the male participants (from female to female: 78.7%; from female to male: 61.8%; from male to male: 20.0%; from male to female: 41.5%)

Discussion

The frequent use of supportive moves under condition 5 (P+: S<H; with distance and high imposition) and also under condition 12 (no power difference, no

distance and low imposition) suggests that the participants tried to mitigate the request force whatever the condition of the situation. Grounders appeared most frequently among the six supportive moves. This may be because grounders are efficient mitigating strategies, as they give H reasons, justifications and explanations for a request.

The pictographs were most frequently used among equals. They were used most frequently with the informal and indirect head act, P2, which were often used among close equals. This suggests that pictographs are used to show solidarity among equals. Pictographs were also frequently used with the informal and direct head act, B1. This indicates that pictographs are used to reduce the brusqueness of requests and to mitigate the request force. From these findings, it can be said that pictographs are used to show solidarity as well as to reduce the brusqueness of requests. The female participants used more pictographs than the male participants. This may be because the females were more conscious of maintaining the harmony by reducing the brusqueness than the males.

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Learning English in Britain: A Journey of Building up the Ideology of 'Chinese National Identity'

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Introduction

Given the growing population of Chinese students in language schools in Britain, understanding the learning and living experiences of these students in the new academic community and British society has become crucial. When these learners who have already formed a robust sense of 'identity' or 'self-image' in Chinese culture before coming to Britain move across geographic, linguistic, social, cultural, and ideological boundaries, they will naturally go through intercultural secondary socialisation (Pavlenko, 2001), and their established identities and ideologies will be negotiated and reconstructed through their interactions with the surrounding people. This paper explores the dialectical relationship between ideology and practice by focusing on a Chinese student's discovery of his national identity during an English language learning sojourn in Britain. Jin's oral narrative and the data of crosscontext observation provide insights into the development of his Chinese national identity in a mixed-culture environment. His mixed family background makes his story quite different from other young Chinese students who undertake to learn English in Britain.

National identity as an ideology

usually approach their communicative encounters with their multiple identities, and a particular identity or a set of identities will become relevant depending on the activity itself, their goals, and the identities of the other participants (Hall, 2002). When the Chinese students travel to Britain, their national identity will become significant in communicative activities with others from different geographical regions. Sarup (1996, p. 131) suggests 'national identity is a construct, fashioned by particular people for particular reasons at a certain time'. National identity, as an ideology, encompasses the ideas of belonging wherever you are, and of being recognised by the surrounding people. Besides imagination, national identity is also an expression of way of life, because ideology is present in 'not only what we think, but what we think about, what we feel, how we behave, and the pattern of all our social relationships' (Burr, 2003, p. 85). There is a dialectical relationship between ideology and social practice. On one hand, national identity influences people's behaviour and their interactions with others; on the other hand, their communicative experiences in the real world constantly assert, question and redefine their national identity among other perspectives of identity.

The Study

This article is based on part of a one-year, longitudinal, ethnographic study investigating the relationship between Chinese learners' identities and their English language learning experiences in Britain. Six Mainland Chinese students in language school participated in the part of nine-month case study, and Jin was one of the participants. From September 2005 to June 2006, I traced the six Chinese students from their registration in long-term programmes in three language schools in Canterbury until their completion of their programmes. Data sources in this part included the following: crosscontext observations; talks, phone and conversations with students and language school teachers; student diaries; talks with language school administrators; final narrative interviews participants; the collection of work samples and school documents; and my research diaries. The purpose of this paper is to sketch Jin's experience of English language learning in Britain, focusing on key themes related to national identity construction. The paper treats Jin's intensive interactions with different ethnic groups as a source of thick description.

Jin

Jin, aged 18, an only child, came from a mixed family in Anshan, as his father was a South Korean, and his mother was a Taiwanese. He could speak Mandarin, Korean, English and a little Japanese. He had travelled to Japan and the United States before he came to the UK. Jin arrived in England in June 2005. He took the 'One to One' English course immediately in Lydd in Kent, where he remained until September. Then he registered in the 36-week International Business Foundation Programme at Crawley International in Canterbury, and lived in a host family. Jin's mixed intercultural family background and his previous studying abroad experiences made him open to accepting different culture issues.

Confusion over the national identity on the first arrival

When I went to Crawley to do classroom observations on the first day, Jin was absent. He was introduced to me by the teacher as a Chinese student, however, Lan (Jin's Chinese classmate) pointed out, 'Jin's mother is a Taiwanese, while his father is a South Korean', to clarify his difference from other 'genuine' Chinese, whose parents are both Chinese. Confused by this information, I put the question to Jin when I first met him on 19 October 2005,

F: What's your nationality?

Jin: I don't know.

F: Which country's passport do you hold?

Jin: I can have either Chinese one or South Korean one

F: Where were you born?

Jin: I was born in China.

Jin was born and grew up in China, and had been to South Korea to visit his father's relatives twice, while he had never been to Taiwan. When Jin came to study in Crawley, he had the chance to get to know many Taiwanese students and South Korean students for the first time in his life. He made friends with the students from Taiwan, and he always had lunch with his Taiwanese friends. Even when he spoke Mandarin, he shifted his northeast accent, which is not highly respected, to a Taiwan accent. Jin also spoke Korean with South Korean students, and he travelled to Edinburgh with a group of South Korean students in November 2005. The following dialogue shows Jin's special friendship with the South Korean students.

(Carl is a male English teacher; Shin is a newly arrived female South Korean student; Fan, female Chinese student; Ivan, male Russian student; Ahmed, male Iraqi student.)

Carl: Can you give us an introduction to yourself,

Shin?

Shin: I come from South Korea.

Carl: Can you give self-introduction to Shin?

(looking towards Fan) Fan: Fan, from China. Ivan: Ivan, Russian.

Ahmed: Ahmed, from Iraq.

Jin: I'm Jin, nice to meet you. (Jin said this in

Korean, but Shin looked confused) Carl: What are you speaking?

Fan: Korean.

Carl: Where do you come from, Jin?

Jin: China.

Carl: Shin, how about his Korean?

Shin: So so. (all the other students were laughing)

Jin showed amity to Shin by greeting her in Korean, however, his friendship was not taken in a way as he expected. His Korean was criticised as not being good enough, and he was seen as a Chinese, who could speak Korean, not as a Korean. The other students felt that he was showing off.

Teachers' perceptions of Jin's national identity

Despite Jin's intention of getting close with Taiwanese students and South Korean students, he was perceived by the teachers in Crawley as Chinese, and he took the role of a Chinese in the classroom context, because as Sarup (1996) reminds us we see ourselves as we think others see us.

(Carl is a male English teacher; Kim is a female South Korean student.)

Carl: It's interesting that he (the lecturer in the tape recorder) mentioned China as a developing country. Because from the economy perspective, it doesn't look like this, China is rich.

Jin: China is a big country, and some places are very poor.

Fan: Yeah, yeah.

rail. Teall, yeall.

Carl: How about South Korea?

Kim: Developed and developing country. Carl: How do we distinguish developed

country and developing country?

Zhu: GDP per person. Jin: Yeah, GDP.

In this classroom interaction, Jin took ownership of the role of Chinese student by offering the information about China, the country that he felt most familiar with. His opinion was supported by Fan, a female Chinese student. Jin also supported the answer given by Zhu, a male Chinese student. The cohort of Chinese students, who supported each other, and made an agreement on the answer, appeared in this classroom interaction, and Jin was a member of the cohort. Here, Jin is clearly representing the teacher's expectation.

Finding the difference from South Korean students

Identity is marked by similarity with people like us; and also by difference, of those who are not (Woodward, 2000). As time passed, Jin discovered more differences rather than similarities between the South Korean students and himself, and Jin's intention of getting close with South Korean students ended with failure. After the class on 30 March 2006, I had lunch with Jin in a Chinese restaurant. I asked him,

F: Do you still spend a lot of time with South Korean students after class?

Jin: No. I had a trouble with the leader of South Korean group on last Sunday, firstly, I found the older students refused to talk to me, and then the younger students ran away from me, now even the Korean girls. The Korean students concentrate on each other very much. I once visited the leader's room, and he had a Korean national flag on his wall. When the flag becomes dirty, they burn it. It's scary. Chinese people are more flexible than South Koreans.

The differences between the leader of the South Korean group and Jin exist not only in the way of handling friendship, but also in the deeply rooted cultural values. After Jin was excluded from the South Korean group, Fan and many Chinese students were sympathetic towards him, and he continued making friends with students from Mainland China and Taiwan. Having a Taiwanese mother is not contradictory to his ethnic identity as a Chinese, since Jin believes Taiwan is a part of China. This position keeps him as a member of the Chinese students group. The overtime observation shows Jin's shifted attitude towards the South Korean students: from enthusiastic to disappointed.

Displaying the role of a Chinese

Having had unpleasant experiences with South Korean students, Jin tended to confirm his role of being a Chinese, and interacted with people from different countries accordingly. For example, he explicated the nature of Chinese characters to his Russian classmate in the break time. This is a good example of interculture communication in English, initiated by the motivation to introduce the culture of the language learners' native countries to people from different

countries. His desire to raise awareness of his Chinese heritage not only influenced Jin's behaviour in the language school, but also influenced his behaviour in the social contexts. Jin went to swim in Kingsmead Leisure Centre everyday. Jin visited me on a Sunday afternoon in April 2006,

F: Are you going to swim today? Jin: No, I am very tired. I went to swim yesterday, and an old lady swam more quickly than me. I felt very shy.

F: Why?

Jin: As I am the only Chinese person in the swimming pool, I have to swim more quickly than others.

In our last interview on 27/05/2006, I put the same question to Jin as when I met him on the first time, and Jin was able to give a clear answer on his national identity after staying in Britain for one year.

F: Now, if someone asks you, 'where do you come from?' how will you answer it? Jin: Now, I will say 'China'. If I am not familiar with the person, I will stop here. If I am familiar with the person, I will continue to introduce my family shortly.

Conclusions

Jin's English learning journey in Britain involved negotiation and the development of his national identity. Through his interactions with British people, overseas students of other nationalities, typically South Korean students, and other Chinese fellows, Jin finally defined himself as a 'Chinese' in response to others' construction of him. His story vividly illustrates the complex, emotive, on-going process of the reconstruction of the personal national identity in a mixed-culture context. It also demonstrates that the definition of national identity is not fixed, but a constant process of ideological struggle (Sarup, 1996). Moreover, second language learners are people, whose history, participation and self-imagination are tightly interconnected in complex ways over the course of their second language learning.

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Exclusive boundaries, contested claims: authenticity, language and ideology

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Notions of authenticity have helped to structure the values and frames of reference of linguistics and applied linguistics, without being widely discussed, at least until recently. After briefly tracing its historical background, this paper examines: (1) the dichotomous nature of authenticity; (2) the ideological implications of authenticity claims.

Despite recent critical attention, authenticity remains problematic and paradoxical. It is problematic in various ways. (1) It is notoriously hard to define. According to Trilling (1972:120), it is one of those words "which are best not talked about if they are to retain any force of meaning." (2) It is often vacuous, as in the claims of travel companies to offer tourists 'the authentic Finnish experience', 'authentic Ireland', and the like. (3) And yet, it still matters; we seek to achieve authenticity for ourselves and our forms of life, and may have strong views about what that means in a given context. To acknowledge the plurality of the term's potential meanings, therefore, is not necessarily to avoid conflict about it in any particular case.

Authenticity is paradoxical in part because it always eludes us. As soon as we become reflexively aware, so that authenticity is something to be achieved, or restored, or recovered, etc., it is already lost (cf. Coupland 2001; Culler 1988). Its close counterpart in linguistic studies is Labov's observer's paradox, which involves both (a) the impossibility of hearing what is said by our informants when we are not present, and (b) an ideological move by which this unrecoverable, idealized vernacular has been assumed to be the most 'real' / most basic form of the language. Similar idealization has occurred in relation to the speech community - the more authentically itself the more untouched, internally coherent, etc. it is (cf. Bucholtz 2003) - and to the 'native speaker', the unreflectingly fluent and competent language user, against whose effortless performance that of 'non-native' language learners has generally been measured.

Authenticity in its present sense emerged at the end of the 18th century, as part of the romantic flight from the modern. This had two main aspects: (1) a revolt against industrial/commercial culture, typified by Wordsworth's attempt to recover "the real language of men" from the vernacular speech of Cumbrian peasants (Wordsworth 1800); (2) the retreat of religion and rise of the self, the 'interior turn' central to the emergence of Romanticism (cf. Taylor 1989, 1991). The former celebrated timeless folk ways and solidarities, the

traditional, locally embedded life of the community, in contrast to the dynamic social forces of the city and industrial mass production which dislocate and destroy them. The latter linked the history of the modern concept of authenticity to that of the private self as the setting for what is most characteristically human. It is here that authenticity acquired the status of a defining property, and in the relation between the self and its identities that authenticity, or its absence, came to be most directly experienced. In this view, the 'real' is an interior quality and this inner reality legitimizes or guarantees outward behaviour / appearances (cf., in their different ways, Marx, Freud and Chomsky). In relation to the first of these aspects, authenticity appealed to ideas of origin, essence, place, and antiquity; but also to shared values, marginality, purity and vernacular mundaneness. In relation to the second, its most relevant features were connection to self, instinct, and private experience; also to creativity and self-expression. So conceived, authenticity became a constitutive aspect of the western world view, and our sense of who and where we are, of what matters to us and why.

It has also shaped views about the features of 'authentic language', a legacy inherited by much modern (socio-, etc.) linguistics. Among its most familiar features are the following: it is native, spoken, verbatim, unrehearsed, off-the-record, sincere, vernacular and non-standard. Unsurprisingly, many of its features have also been taken to characterize male speech (Eckert 2003).

Today the notion of 'authentic language' and what it means across global contexts has been the subject of extensive discussion. Older certainties have been challenged. In place of asking what authenticity is, we ask what it means to be authentic in a particular setting. However, perhaps as a symptom of nostalgia for these lost certainties, late modern social arrangements tend to make the quest for authenticity more rather than less urgent. In this context, a key aspect of its appeal is that it resists relativizing. As Coupland puts it: "The power of the term 'authentic' is to succeed in asserting absolute values in necessarily relative circumstances, and in asserting a singular essence when competing criteria for authenticity exist" (Coupland 2003:429, note 2). It is also final: i.e. in need of no further explanation or justification (cf. Rorty 1989:73).

The following general features of authenticity can be identified: (1) it is relational, (2) connected to origins, (3) currently relevant, (4) absolute, (5) 'final' / self-legitimating, (6) the goal of some kind of quest / discovery / retrieval, (7) time-bound, (8) normative / desirable, (9) value-laden, (10) dichotomous, (11) it makes an ideological claim, and (12) requires gate-keepers, authenticators or certifiers. The discussion here focuses on the last three of these.

Authenticity draws an absolute boundary between the entities, etc. deemed to be authentic, and those that are not. No particular set of things is by nature authentic; yet, in a given context, not just anything *can* be

authentic: the condition of its authenticity is necessarily the exclusion of the inauthentic. This division clearly cannot be regarded as a matter of fact, although the rhetorical trick is to present it as such. Compare here other similar dichotomies, for example, truth vs. myth, the literal vs. the metaphorical, fact vs. fiction, basic to modes of understanding in the Western tradition (cf. Lloyd 1990). As usual with such dualisms, the preferred side enjoys a special privilege. In relation to 'authentic language' or 'authentic text', for example, a corollary is the *de*legitimization of those kinds of language or text supposed to be *inauthentic* (for example, that of the RP speaker; the academic text, institutional discourse, etc.), although this is often left implicit.

The crucial questions are, then: who has authority to draw this boundary? Who validates authenticity claims? Gate-keeping rights tend naturally to belong to those in power and so readily become a focus for conflict between (e.g.) politicians, linguists, media commentators and various interest groups. Claims are often made strategically to validate particular ideological positions. For example, authenticity may be invoked to justify the choice of a particular language norm or efforts to 'purify' a given variety and exclude outside influences, etc.: as such, it forms part of the rhetoric that sustains these ideologies. This may serve the interests of monolingual nation states by drawing on the 'original essence' / 'native' aspects of the term, denying authenticity (hence legitimacy) to the foreign, the hybrid, the mixed - for example creoles, mixed codes, or bilingual speakers in general. On the other hand, the centrality of authenticity to linguistic issues reflects the field's concern for the outsider and distrust of the institutional, etc. The very fact that a boundary of this kind is drawn stimulates efforts to rehabilitate the excluded categories. Authenticity claims, in this case drawing on the term's marginal, local, vernacular connotations, are thus made by (or on behalf of) those groups, language features, etc. that are marginalized by the mainstream. In either case, however, what counts as authentic tends to be partly or wholly imposed (for example, in ethnographic field work, often centrally concerned with the position of excluded or nonmainstream groups, it is often the decision of the analyst, backed by institutional authority, not that of the people being observed, which determines which aspects of the data should be regarded as authentic; cf. Bucholtz 2003).

Authenticity presents itself as a matter of fact, but asserts a value, or rather, a particular hierarchy of values. In this sense, it is necessarily 'ideological'. In the transition from modernity to postmodernity, the poles of the familiar, romantic value system have largely been reversed: most interest is now directed towards the urban, the fragmented, the stylized, etc. Yet, while we are becoming more aware of the difficulties attaching to authenticity – and celebrating 'new' forms – the earlier, romantic ideas still exert an influence. We therefore need to tread carefully when questions of authenticity arise; even in hybrid, fragmented social contexts it still draws a strong

contrast with inauthenticity: some forms of behaviour, etc. are held to be 'authenticating', 'legitimizing', etc., while others are not. And authenticity still seems to bestow final confirmation on these activities: the work done by the concept is the same, even as the forms to which it attaches vary. Whatever reflexive awareness we bring to the discussion, the term itself retains its sense of finality: perhaps it is this essentialist orientation that gives authenticity its special potency in an era nostalgic for the security of a single, intrinsically valid frame of reference.

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Iceland's language technology: policy versus practice

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Introduction

Iceland's language policies are purist and protectionist, aiming to maintain the grammatical system and basic vocabulary of Icelandic as it has been for a thousand years. Corpus planning plays a major role in keeping the language free of foreign (English) borrowings and inventing neologisms for new terms. Corpus planning is considered of great importance in the domain of information technology (IT). If Icelandic is not used within this domain, according to Rögnvaldsson (2005), then a part of the daily life of Icelanders will be in a foreign language, a situation 'without parallels earlier in the history of the language.'

In order to use Icelandic in the IT domain, there has been a major investment in language technology including the development of linguistic databases, translations of software and use of the special Icelandic characters in international standards and fonts. However, funding language technology is expensive and time consuming and some feel that, with a population conversant in English, the effort to constantly adapt and translate new technologies from English is not worthwhile.

This paper aims to examine Iceland's policies for language technology and investigate whether they can be maintained in practice.

Ideologies

Before examining Iceland's policy for IT, it is necessary to understand that policy is informed by the ideologies that Icelanders hold about their language. These ideologies are historically deep-rooted and hold great psychological importance to the community.

Iceland was settled by West Norwegians in 870 – 930 AD. The settlers took the language of the west Norwegians, Old Norse, with them, wrote down the history of the first settlements and established a great literary tradition. Icelandic literature reached its zenith in the thirteenth and fourteenth centuries, the 'Golden Age' and Icelandic writers and poets were highly sought after in the courts of Europe. A manuscript culture developed at this time, and flourished in Iceland long after the advent of printing technology. The ancient manuscripts were copied out by laymen, such as farmers, and the stories of the sagas read out to the extended families in the evenings after work on the farms. A love of literature became part of the culture.

Manuscripts became the grassroots means of distributing historical and literary knowledge up until the end of the 19th century because printed books were too expensive for the common man to buy (Ólafsson, 2001). Many professional people also collected and copied manuscripts, especially Árni Magnússon, whose collection, built up in the second half of the seventeenth century and the beginning of the eighteenth century, now bears his name. This collection of manuscripts forms the core of Icelandic national heritage.

Iceland was a colony of Denmark for over five hundred years, until 1944. One of the consequences of Danish domination over Iceland was the rise of linguistic nationalism, in the form of the pure language movement (hreintungustefnan) to purify the language and rid it of Danish influence. Linguistic purism in Iceland was a highly political issue in the nineteenth and twentieth centuries, and was characterised by keeping out foreign words and inventing neologisms. The act of creating neologisms also had the political role of signalling – and even exaggerating – the difference between Icelandic and Danish. Iceland based its identity, after emerging as a nation after hundreds of years of Danish rule, upon its language and literary tradition.

English started to take over from Danish after the invasion of Iceland by Britain in 1940 and the subsequent handing over to the Americans in 1941. These actions became an impetus to get rid of English words and the official reaction from the Icelandic Government was to give financial support, although on a small scale, to the creation of Icelandic neologisms, from the 1950s onwards.

Language policy

Icelandic, spoken by about 300,000 people, is the official language of the Republic of Iceland and is used in all aspects of daily life. Icelandic language policy has two main components: 1) the preservation of the language (of the system of grammar and the basic vocabulary) and 2) the development of the language (Ministry of Education, Science and Culture, 2001). Iceland's policy for IT reflects its language ideologies. The government's vision of the information society in Iceland is summed up in the two words: guidance and vigilance, that is, to guide information technology in a 'beneficial direction' by facilitating the use of Icelandic in as many fields as possible (guidance) and to stand guard over the Icelandic people's identity (vigilance) (The Icelandic Government, 2001).

Icelandic language policy deals with the two fundamental parts of language planning: corpus planning and status planning, which are interrelated. A language variety cannot gain status in a particular society unless it is provided with forms of language which meet certain demands, that is, that the varieties in question have developed the vocabulary necessary for all the domains needed, and that there is a literary standard. The interrelation between corpus and status becomes clear when we realize that, as a certain

language variety gains more domains in society, there are more and more opportunities for it to have a positive influence on the forms of language, for example, by developing and promoting its literary standard further, and by increasing the amount of new vocabulary for more specialized fields, which may build on existing terminology in that language. The more vocabulary there is, the stronger the status of that language. Hence, there is a circle of enhancement at work here. Icelanders have been able to develop the necessary vocabularies in all basic domains of society, which in turn makes it easier for language developers to continue whenever they are faced with new technology or new ideas.

The Icelandic government launched a language technology project in 2001 to encourage the development of software and equipment enabling the use of Icelandic in computer equipment and computer-controlled devices. It was seen as crucial to create 1) common linguistic databases which companies could use as raw material for their products, 2) to invest in applied research in language technology, 3) give financial support for private companies developing language technology products, and finally 4) increase education and training in this field. Some progress has been made in all of these areas (Rögnvaldsson 2005).

One of the priority tasks in the language technology project was that general computer programmes in everyday use should be available in an Icelandic translation (Rögnvaldsson 2005), such as the Windows operating systems, the Microsoft Office package, email programmes, and Internet browsers. In 1999 Microsoft agreed to translate their Windows98 operating system into Icelandic, after initially refusing to do so, because of the small size of the Icelandic market. This translation was ready in March 2000 but there were some technical bugs in it and it never became widely used. Furthermore, Microsoft was about to launch its Windows 2000 operating system, which, in fact, they never translated into Icelandic. In 2004 however, Windows XP, with Internet Explorer and Microsoft Office, came on the market in an Icelandic translation, and many people, schools, companies, use it now instead of the English version, or make use of both versions. In order to stimulate the use of Icelandic further, the Government has announced that preference will be given in public tenders for software localised for Icelandic (Ministry for Education, Science and Culture, 2005: 16).

It is important for language technology purposes that the characters of a script are part of international standards and fonts, for example, so that search engines can search for sites with those characters. Iceland made great efforts to have its special alphabetic characters incorporated into ISO-Latin 1 – the dominant character set. One of the more recent products of the language technology project is *Embla*, a search engine, which "knows" Icelandic' (Gíslason, 2005) and therefore is capable of searching for all the inflections. Search engines such as Google are limited in terms of being

able to search for Icelandic words with all their inflections.

Conflicts: ideologies versus practicalities

Despite support from government, the question of whether to continue to promote Icelandic versus English in information technology causes mixed feelings amongst Icelandic IT professionals. Some believe that it is absolutely essential that Icelandic be used in this domain, for ideological reasons, while others are uncertain that the effort is worthwhile, for practical reasons. These reasons include the cost, the difficulties of constantly translating and adapting new technologies, Iceland's small population, plus the fact that the population is quite able to cope with IT in English.

According to Rögnvaldsson (2005) the total budget for the language technology project which ended in 2004 was about one eighth of the estimated cost to make Icelandic Language Technology self-sustained. A major problem, he stresses, is that the small size of Iceland's population 'is not enough to sustain costly development of new products.' He emphasises that, although the project has been successful, it is important to continue with public support for it and 'to utilize the knowledge and experience that researchers and companies have gained.'

As we can see, cost is a major issue. Hitherto Icelanders have always paid for goods in Icelandic, such as for books and newspapers. The price is very high precisely because they are in Icelandic and the market is small. Rögnvaldsson (2005) wonders however, 'will individuals want to buy Icelandic technology products or cheaper English ones?'

People may be ready to pay a little more for language technology programs and tools in their own language, but if the difference is substantial, people will resort to the foreign almost always English products (Rögnvaldsson, 2005).

Because English started off as the language of programming, professionals in Iceland very often use English as they are more used to it, so that it is not necessary to use Icelandic. Furthermore, those who need to communicate with non-Icelanders will work in English as it is the language of international portability. It is also the case that, until recently, the Internet could not handle other scripts, the norms having been established in ASCII (American Standard Code for Information Interchange). As Unicode becomes a more widely used standard this is less and less of a problem.

The young generation have a good knowledge of English: they learn English as the first foreign language at school, and many know the language even before school begins through watching Anglo-American television programmes and films. As these young people are the next generation of policy makers, they may consider it unnecessary, too difficult and too

expensive to bother with developing language technology in Icelandic.

Even if a speech community has – like Iceland – the economic means, the necessary political will, the backing from an independent state government, the knowledge of language experts and technicians, the vocabulary created by enthusiastic voluntary language cultivators, etc., it is not always possible to compete against a global language. The average user can always expect to encounter English in the latest or "hottest" products, since it often takes some time for the producers or marketing agents to have a translation ready. The best that Icelanders can hope for is some sort of bilingualism in this domain.

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"It seems reasonable to regard them as a single group": As-predicative constructions in research articles in four academic disciplines.

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Introduction

In recent studies focusing on disciplinary differences in academic writing, much attention has been paid to such features as personal pronouns (Harwood 2005) and reporting verbs (Charles 2006). Meanwhile, the use of individual grammatical constructions has received less systematic attention. There is a clear explanation for this: while individual words can be retrieved easily and quickly from any corpora, one usually cannot link grammatical structures to particular words, and for this reason studies on grammatical phenomena require more extensively annotated corpora and more complex search syntax (Gilquin 2002).

This paper investigates the use of a particular grammatical construction, the *as*-predicative, in research articles in four academic disciplines. From the analyst's point of view, this construction has the advantage of being associated with a particular lexical item, which can be made use of in corpus searches. This enables the accurate and relatively unproblematic retrieval of the construction from a corpus.

The term "as-predicative" refers to a complextransitive construction exemplified in the following sentence, taken from a medical research article:

We used the midpoint of LVAD enrolment as the dividing point for comparing the 2 cohorts. (Park *et al.*, 2003)

As defined by Gries *et al.* (2005), the construction consists of four elements: a verb (*use*), the direct object (*the midpoint of LVAD enrolment*), the word *as*, and a complement constituent (*the dividing point for comparing the 2 cohorts*). The construction comments on the semantic relationship between the noun phrase and the complement (ibid.).It is typically employed in sentences expressing an evaluation of some kind, which makes it an interesting object of study from the perspective of the rhetoric of science.

Material and method

The analysis is based on a corpus of 256 research articles representing four academic disciplines: medicine, physics, law, and literary criticism. Each subcorpus contains 64 articles published between the years 2002 and 2005. The articles have been chosen from influential journals in each discipline. The total size of the corpus is approximately two million words.

The corpus has been part-of-speech tagged using the CLAWS tagger (http://ucrel.lancs.ac.uk/claws/).

The use of the construction is explored in each of the four subcorpora, and to provide a comprehensive description of the construction, two different approaches are used. First, to obtain an overall view of the use of the construction, a simple frequency analysis is carried out in all four subcorpora. Second, to investigate the co-occurrence patterns of the construction in different disciplines, collexeme analysis (see Stefanowitsch and Gries 2003) is performed on corpus data. Furthermore, the typical discourse functions of the construction were considered, again paying attention to possible differences between subcorpora.

Results

The analysis of frequency shows that there is disciplinary variation in the use of the *as*-predicative construction. The construction is roughly equally common in three subcorpora: in medicine, physics and law, there are about one and a half instances of the construction per 1,000 words of running text. However, the construction is considerably more frequent in the literary criticism subcorpus with a normalised frequency of 2.6 instances per 1,000 words. Moreover, frequency analysis shows that the repertoire of verbs occurring in the as-predicative construction is larger in law and literature than in medicine and physics.

Collexeme analysis is a corpus linguistic method developed for the investigation of the relationship between grammatical constructions and lexical items. Using this technique, all verbs occurring in the aspredicative construction were retrieved, and their strength of association with the as-predicative construction was assessed.

The analysis shows that the construction is associated with different verbs in different subcorpora. In the subcorpus containing medical research articles, the aspredicative construction is frequently used with verbs describing typical activities in the research process, such as *define*, *classify*, and *use*. Other verbs associated with the as-predicative construction are *express*, *report*, and *present*, which are concerned with the presentation of data is presented in the research article. The data from the physics subcorpus demonstrates similar tendencies.

By contrast, the construction is associated with different verbs in law and literary criticism. Verbs that have the strongest associations with the construction in these subcorpora include *see*, *view*, *treat*, and *understand*. When these verbs occur in the aspredicative construction, they present or argue for an interpretation or a point of view, or report interpretations made earlier in other contexts.

In sum, the data from four subcorpora shows that the as-predicative construction is employed to perform different discourse acts in different academic disciplines. These results also indicate that collexemes

associated with the as-predicative construction are highly context-specific, even within the register of academic English.

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Before or During? The impact of timing in form-focused intervention⁴

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Over generations of investigation into Second Language Acquisition, learner generated language learning and form meaning mapping in contextualized settings have been identified as among the core objectives in facilitating language learning. These notions were emphasized in the Communicative Language Teaching (CLT) movement initiated in the late 60s and 70s, in Task Based Language Teaching (TBLT) from the 80s to the present date, and in the concept of Focus on Form (FoF). However even today, form introduction often takes place prior to the task or practice sessions per se such as seen in presentation, practice and production approaches. The question remains; is preemptive form introduction truly contextualized? Is there an optimal timing for form introduction?

To address these topics and explore an approach to pedagogical practice that could avoid introducing form in isolation, this paper presentation reports on the of different timings of form-focused intervention. Further, the study attempts to shed light on the conditions of informational encoding at the initial stage of form attainment. This initial stage is framed in contrast to the subsequent automatizing stages when error rates and response rates are reduced and stabilized. The scope of the study is form attainment with comprehension. In this study, an attempt was made to use naturalistic language in a naturalistic setting. By the same token, an effort was made to incorporate a number of benefits identified in research designs used in laboratory studies and artificial language studies. These include controlling for outside exposure by conducting the experiment only once, with all groups participating in the experiment on the same day, manipulating the number of target forms, controlling the frequency of exposure to the target forms, influencing the type of target forms and eliminating some linguistic features in order to avoid a blocking effect.

A reading task served as a platform for exploring the timing of intervention with 58 EFL students in Japan. The informants were classified into three groups: one group receiving unified form-focused intervention before the task, another during the task sometime after the subjects were exposed to task materials, and a control group receiving no treatment. The treatment was a one time intervention, uniformly provided in an effort to isolate the variables. Pretests and posttests were conducted immediately before and after the task in one class session. Exploring the use of epistemic meanings of a single modal auxiliary verb associated

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with the tense-aspect system, each informant recorded real time reflections during the three steps of the task procedure.

These real time reflections revealed that semantic meaning oriented reasonings are associated with higher accuracy rates. Meanwhile, the uses of metalinguistic terminologies are allied with decontextualised rationales and accompanied by a higher rate of incorrect selections of words. With regards to the attainment of target forms during one task session, statistical significance was evident for group variance in the learning of epistemic meanings of a modal verb (p < .001). This result verifies the stronger impact of form-focused intervention during the task in a delayed fashion. However there was no statistical significance in attainment of the tense-aspect system, indicating variance in the transparency of different features and their learnability in a limited period of time. Although statistical significance was not evident in attainment of the tense-aspect system, the outcome replicates a pattern that was produced in two preliminary studies (N: 234) and a pilot study (N: 52) indicating a promising role for delayed form introduction.

The results suggest that form meaning mapping guidance in a contextualised setting, applied to current work had a more robust impact than the guidance provided in a decontextualised setting disassociated from current use. These outcomes simply reconfirm many works produced during the last 40 years in CLT, TBLT and FoF. There were some distinctions in this study however. These include a few factors: 1) the treatment is not provided right at the moment of inquiry, nor, soon after a noticing event takes place. It is provided in a delayed fashion, after learners are exposed to the current task for a certain duration of time in order to enhance the learners' curiosity. And, 2) the treatment in the delayed group is reactive, however it is not reactive to learner error or inquiries. It is reactive to the learners' intention to know the function of essential forms.

Applying the theory of adjustable attentional control (Cowan et. al. 2005; Cowan, Johnson and Saults 2005), it is hypothesized here that informational encoding is enhanced with 'preparatory attention' (LaBerge, 1995). And possibly, sustaining information over a delay of time might have optimized the function of the perceptional system and assisted in priming the operations of working memory. The results also present a positive role for a reactive mode of treatment associated with learners' voluntarily generated goal oriented learning while also supporting the use of proactive material design.

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Context and Learner Attitude in Oral L3 Development: insights from native and non-native performance after a stay abroad

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Introduction

There is already a substantial body of research, starting around the 1990s, devoted to the analysis of stay abroad (SA) effects on SLA. Collentine and Freed (2004), DuFon and Churchill (2006), and DeKeyser (2007) constitute good examples. Most studies have focused on gains in specific skills in individual programs. Nevertheless, a new line of research in recent years has compared gains in SA contexts with those attained in at home (AH) courses, whether formal language classrooms or immersion programs. Studies have so far investigated lexical, grammatical, phonological, pragmatic and sociolinguistic gains as a result of SA. As for linguistic skills, reading, writing, and listening have received scant attention. Speaking has been by far the most researched skill, since improvement in this area is usually regarded as the major goal of study abroad. Such research, however, has produced mixed results so far.

The present study contributes new evidence on the effects of a SA on speaking. We try to provide a profile of oral development for a group of advanced learners of English. We additionally present information on the effects of the AH formal instruction context that precedes our subjects' SA. Native and non-native performance on the same oral task has also been compared. Finally, we have looked at how individual differences in attitude interact with oral proficiency gains and can help predict them.

Method

Participants in the study were 20 EFL Catalan/Spanish bilingual students enrolled in the Translation and Interpreting Degree at Pompeu Fabra University (Barcelona). We also collected data from 19 native speakers (NSs) of English, exchange undergraduate students at the University of the Balearic Islands. As regards treatment, students had no oral skills training during SA, yet practice according to individuals' agency and conditions, while AH they had no oral skills training and scarce opportunities for practice.

Data were gathered over two years at three different collection times: T1, upon university enrollment; T2, after two terms of AH formal instruction treatment and prior to SA; and T3, following a three-month compulsory SA in an English-speaking country. As

regards data collection instruments, we used a twoway, problem-solving, open-ended role-play with a 7' time limit to gather oral data. In the role play, one of the students acted as a decorator and the other one as a client. They had to discuss four different living room decorations and reach an agreement. Participants also answered a questionnaire on attitudes, beliefs and motivation. Oral data have been transcribed and codified with the help of CHILDES tools.

The present analysis focuses on overall grammatical and lexical progress as defined by Fluency, Accuracy and Complexity (FAC) measures (Pérez-Vidal et al. 2000; Wolfe-Quintero et al. 1998). Formulaic speech, which has often been related to fluency, has also been considered. The following statistical tests have been applied: repeated measures ANOVAs, LSD post-hoc comparisons, T-tests, and discriminant function analysis.

Results

Table 1 below displays results for oral development. In the Fluency domain, results are mixed. On the one hand, we find a significant decrease in words per clause (W/C) after SA, and on the other a non-significant increase in words per sentence (W/S), contrary to what happens AH. Overall, there is significant developmental loss in clause length, but a nonsignificant increase in sentence length. Concerning the use of formulas, a statistically significant increase in their number has been found after SA. In contrast, there is a dramatic loss AH, which SA gains help to compensate for, but not entirely, as can be seen in the overall column. As regards Accuracy, the SA results in significant gains in that the number of errors diminishes after that period in contrast with a slight AH. Overall, there significant increase is developmental improvement in this domain. Finally, as concerns Complexity, again we see a positive effect of the SA period in both grammatical and lexical complexity features. **Participants** produce significantly larger number of clauses per sentence (C/S) after SA. Although the rest of values in this column do not reach significance, dependents per clause (D/C) also grow a little in number and the coordination index (CI) improves, as there are fewer coordinates in relation to subordinates. Participants also exhibit a slightly more diverse vocabulary, as the type-token ratio (T/T) indicates. AH, however, we find generalized losses. Overall, developmental gain in this domain is only found in C/S and D/C.

Table 1. Oral development AH, after SA and overall

Domain	Measures	AH (T2-	SA (T3-	Overall
		T1)	T2)	(T3-T1)
Fluency	W/C	+0.336	-1.059*	-0.723*
	W/S	-0.220	+0.382	+0.162
Formulas	F/C	-0.102*	+0.063*	-0.039
Accuracy	E/C	+0.023	-0.198*	-0.175*
Complexity	C/S	-0.160	+0.343*	+0.182
	D/C	-0.029	+0.053	+0.024
	CI	+4.258	-1.200	+3.058
	T/T	-18.928	+0.032	-18.895

Native and non-native performance has been compared at all data collection times and for all the measures used. We will just report now on significant comparisons at T3, when non-native performance becomes more native-like. Table 2 below shows that NSs use a wider repertoire of formulas per clause (F/C) than NNSs. NSs are overtly more accurate, just making occasional performance mistakes (see E/C, errors per clause). Their CI is lower, that is to say, they proportionately produce more subordinate than coordinate clauses. And finally they exhibit richer vocabulary (T/T).

Table 2. Significant comparisons between native and non-native performance at T3

Measures	NNs (T3)	NSs	Difference	P value
F/C	0.151	0.238	-0.086	0.0161*
E/C	0.198	0.018	0.179	0.0001*
CI	40.014	26.188	13.825	0.0138*
T/T	0.434	0.546	-0.112	0.0014*

Turning to the analysis of learner attitudes and their interaction with oral development, we first divided participants in the study into two groups, low-scorers and high-scorers, on the basis of their performance in the different FAC measures above. We specifically examined the progress between T2 and T3 to determine which of the students appeared to benefit the most from their SA. Then a combination of 6 variables that could predict group membership was found (see Table 3 below). The analysis performed has enabled us to classify 100% of the cases correctly. The correlation between groups and variables is strong (0.938) and the difference in means highly significant (p < 0.0001). The analysis indicates that low-scorers tend to have low values on variables 1, 2 and 3, whereas highscorers generally exhibit high values on those first three variables, which appears to indicate that they are good predictors of success. The reverse thing happens in the case of the remaining variables, 4, 5 and 6, where low-scorers tend to exhibit high values, while high-scorers usually have low values. Thus, it can be gathered that the latter variables are not associated to success.

Table 3. Discriminant variables

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Variables	Coefficient
1. If I were to rate how hard I work at learning	1.838
English, I would characterize it as:	
Very little (1) Very much (7)	
2. If I were to rate my level of anxiety when I	0.860
speak English, I would rate myself as:	
Very nervous (1) Very calm (7)	
3. I have a great desire to learn a lot of English.	1.550
Strongly disagree (1) Strongly agree (7)	
4. I am learning English mainly because it is an	-1.729
international language.	
Strongly disagree (1) Strongly agree (7)	
5. My attitude toward my English teacher(s)	-0.785
during secondary education was	
Unfavourable (1) Favourable (7)	
6. If possible, I would like to take English	-1.361
courses not included in the Translation and	
Interpreting Degree.	
Strongly disagree (1) Strongly agree (7)	

Discussion and conclusions

We have seen that the SA appears to have beneficial effects on oral development in all the domains and areas examined, except for Fluency, where results are mixed. Quite a number of studies have reported gains in this domain. However, several authors have noted that not all learners in SA groups improve in their fluency (e.g. Segalowitz & Freed 2004). In the present study, improvement is stastistically significant in the case of formulas (see also Bradley 2003), accuracy, which does not generally tend to benefit much from SA as noted by DeKeyser 2007, and one feature of syntactic complexity (clauses per sentence). The AH context, on the other hand, does not seem to be beneficial for oral development.

As regards native and non-native performance, native advantage resides, according to our analysis, in the fact that NSs make abundant use of formulaic language, make practically no mistakes, and have turns which are more complex grammatically and lexically. A number of attitudinal variables related to success have been located: strong desire to learn, hard work, and low level of anxiety. Marcos-Llinàs (2006), among others, has also found a similar correlation between these affective variables and proficiency gains. Other variables, however, appear to be less conducive to success.

We can conclude by saying that the SA has visibly positive effects on oral development in formulaic language use, accuracy and complexity. The AH context, on the other hand, does not seem to benefit oral development, which is hardly surprising given that, as pointed out, our students get no training or practice in oral skills AH and their opportunities for interaction are also quite limited in that learning context.

In future research, we intend to incorporate new measures of fluency that can help us capture progress in this area more accurately. We also need to investigate further the ways in which NSs and NNSs differ, as this can throw light on the areas that our students need to devote more attention to. Finally, we plan to look at contact data during SA, since the learners' ability to benefit from communicative opportunities while abroad plays a major role in accounting for linguistic gains.

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Fonua: Lands, languages, teaching and learning
Language Politics in the 'National Diploma in Teaching Early
Childhood Education (Pasifika)'
(A work in progress)

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Abstract

In this paper the Indigenous/colonized Māori and Tongan writers question the development of the National Diploma in Teaching Early Childhood Education (Pasifika) offered by the Auckland University of Technology's School of Education in Aotearoa-New Zealand. We argue that instrumental or technical education does not privilege Tongan, Samoan, Niue, Fijian, Tokelau and Kuki Airini Māori peoples' languages and cultures in tertiary education. Rather, current technocratic approaches to teaching and learning symbolize the tenuous relationship the groups of people have in education institutions. The danger for Tongan, Samoan, Niue, Fijian, Tokelau and Kuki Airini Māori teachers and students in the tertiary institutions' preference for instrumental pedagogy is that they may come to believe that there is one way of teaching and learning, one valid methodology, and one valid policy of knowing about how people relate to the educative environment. An equally important threat to them that so immobile, rigid and powerful is the relationship between English language and its attendant practices that they could move into the position set aside for them in the higher education hierarchy. Sometimes teachers play an important part in establishing practices through which students are overwhelmed by the pedagogy.

The significant notion is that Tongan, Samoan, Niue, Fijian, Tokelau and Kuki Airini Māori or 'Pasifika' peoples could become better informed about their colonized position in education institutions when they draw upon the language and culture of their indigenous lands alongside their learning and education in Aotearoa-New Zealand. On the concept of Fonua Tongan people, for instance, can create and re-create their knowledge, their approaches to knowledge and their systems of knowing that are more desirable and worthy of support because of the perceived education and economic benefits that will be derived from such development. Specifically, the focus of the presentation is the colonization and decolonisation of Tongan people's language and culture in the National Diploma. Hence, we conceptualize pedagogical possibilities that would enable Pasifika teachers and organizations to transform approaches to teaching and learning that dismiss Tongan language and culture in the Diploma, and thereby to offer practical solutions to privilege

(advantage) Pasifika approaches to language learning and teaching.

The Linguistic Landscape

In his text *Pedagogy of Freedom*, Paulo Freire has contended that teachers concerned only with data alienated from the situations most people occupy, live in an idealized world, a world just of data (Freire, 1996). Further, not only does present day language teaching theory offer little critique of the alienation of a person's or group's intimate language and culture, but the field is amongst the biggest advocates of the tools and technologies emphasizing the alienation (Kepa, 2001: 36; see also Haworth, 2005: 91-109: Taumoefolau, 2004: 66-76; Manu'atu, 2000: 29, McLaren, 1995: 11-12; Bankston & Zhou, 1995: 3; Deyhle, 1995: 254; Syme, 1995: 35; Harklau, 1994: 24; Giroux, 1983: 202-203).

Most important, the Indigenous Tongan academic, Melenaite Taumoefolau has taken the time to critically consider that "... many of our languages are declining. ... in New Zealand we need to be bilingual and the difficulty is how to become bilingual when there is overwhelming pressure to become monolingual in English" (Taumoefolau, 2004: 66). Thus, the writers have to ask ourselves if language teaching and learning, as they are being communicated in Aotearoa-New Zealand, leave 'Pasifika' peoples vulnerable and alienated in society. We have to ask ourselves if development refers to capacity building strengthening the potential of 'Pasifika' students' language and culture; rather than only sustaining English domination and instrumental virtuosity. Situated within the AUT University's School of Education, we will discuss how the instrumental discourse grounded on the assumptions of individual success, competition and sovereignty languages and cultures that are embedded in a relationship between beings and place, society and culture, subjectivity and objectivity.

Pasifika: the 'land' of Linguistic Imperialism

For the most part, the Ministry of Education's developers of the 'National Diploma in Teaching Early Childhood Education (Pasifika)' seem to draw on pedagogical approaches that enhance aspects of English language and technical education to counter the language and culture of the Samoan, Tongan, Niue, Tokelau, Fijian and Cook Islands Māori city dwelling, low income students who, in the main, are mature women. It is important to note that the use of the term 'Pasifika' is consistent with the purposes of the Ministry of Education. That is, the terminology: "does not refer to a single ethnicity, nationality, gender or culture. The term is one of convenience used to encompass a diverse range of peoples from the South Pacific region and people residing in Aotearoa who have strong family and cultural connections to Pacific Island countries. Hence the use of the term Peoples rather than People. It is a collective term used to refer to men, women and children of Cook Islands, Fijian,

Niuean, Tokelauan, Samoan, Tongan and other Pasifika or mixed heritages. It includes a variety of combinations of ethnicities, recent migrants or 3rd, 4th or 5th generation New Zealand-born" (Terms of Reference, Te Kura Mātauranga, AUT's School of Education, 17 February 2004)

The widespread appropriation of the name 'Pasifika, flanked by others such as 'Pacific', 'Pacificans' Pacific Islander' or its abbreviated form PI, obscures the complexities and interests in which the ways of interacting by people from Tonga, Samoa, Niue, Tokelau, Fiji and the Cook Islands are produced. On this appropriation, the label is such a nebulous construction that educational institutions decline to point out that its usage often indicates simply that a person or group of people is not part of the privileged discourse or prevailing New Zealand European/Pālangi society. To make the issue even more complex, the grounds the construction terminology universalizing image with no consideration of the scope of linguistic, cultural, including political, regional, economic, religious, and spiritual ways that Pasifika peoples distinguish themselves and others. All too often, the peoples are homogenized or commodified as a single entity or 'thing' that allows the exercise of a subtle and insidious form of manipulation and exploitation; that is to say alienation of, and power over them. The pedagogy of homogeneity denies Pasifika students' preparation to behold the political realities of being Tongan in the Diploma, for instance, to live with purpose and presence with others in Aotearoa-New Zealand, and to change the prevailing society's exclusionary attitudes and practices towards them (Kēpa, 2001 see also, Balto, 2005; Hough & Skutnabb-Kangas, 2005; Meyer, 1998; Ladson-Billing, 1997; Murrel, 1997). Suffice to say that there is clear support from the literature for thinking and practice that are focused on beings-inrelation-with place or *Fonua*. (Manu'atu, 2005)

Fonua: People, Placenta, Birth & Burial

According to the Indigenous Māori academic, Mason Durie, "While there are important differences in the circumstances of Indigenous peoples in Aotearoa-New Zealand or in Tonga, or between Australian Aborigines and native Fijians, or between native Hawaiians and native Americans, or between the Nisga'a of Canada and the Saami of Norway, there are commonalities that serve to emphasize the practices shared by First Nations peoples in the so-called fourth world" (Durie, 2003, p. 271). So, just how should Tongan people encounter Durie's notion? What pedagogical and philosophical ideas can be drawn from Tongan language and culture? In order to speculate about ways of thinking and communication, and approaches to language teaching and learning Fonua is taken as a metaphor to contextualize, to speak about, to question, to dialogue, and to conceptualize how Tongan people make sense of themselves and their development in the 'worlds' in which they live. Two inter-related notions or 'worlds' namely tuūfonua (being indigenous) and nofofonua (residing permanently in another country) underpin the metaphor (Manu'atu, 2005:137). The speculative idea is that both worlds are intimately related in energy, spirit and life force. The pedagogical idea is that Tongan people living in Aotearoa-New Zealand can develop critical perspectives on indigeneity to inform their residency in the new place. To be precise, they are residing in a Fonua of which they are not indigenous but with the legal status of Resident. The significant notion is that Tongan people who reside in Aotearoa-New Zealand could become better informed about their alienated position in education institutions in both Aotearoa and Tonga when they draw upon the language and culture of their indigenous land alongside their learning and education in New Zealand. Importantly, Tongan people can create and re-create their knowledge, their approaches to knowledge and their systems of knowing that are more desirable and worthy of support because of the perceived education and economic benefits that will be derived from such development.

In Tongan language, Fonua literally refers to the people, the placenta, the place of birth and burial. As a pedagogical concept, therefore, Fonua speaks a holistic, not in the universal sense, understanding of teaching and learning embedded in relations of living and dying. These relations are both physical and spiritual. This means the linguistic and political relationships that Tongan people form, experience and develop can be spoken about entirely through the concept of Fonua. In consequence, Fonua provides a 'frame' to speak Tongan beliefs and knowledge on say Human Development in the Diploma's coursework and by extension relational pedagogy to overcome what Hough and Skutnabb-Kangas have called, "... the legacy and consequences of linguistic and cultural genocide and, in the process, create new and liberating histories for us all" (Hough & Skutnabb-Kangas, 2005:

Fonua is distinguished by distinctive relations and approaches to language teaching and learning. The most salient of these are: (a) the historical context of Fonua, living and dying; (b) the focus on a culturally alienated group in New Zealand society, Tongan people; (c) the specific relationship of Tongan scholars, researchers, and academics to Tongan language and culture; (d) a greater trust in multi-disciplinary approaches; (e) a greater trust in intercultural and transcultural approaches and (f) a greater confidence in orality or talanoa within the education community to overcome the imbalance in narrating coursework created by primary reliance on written text. The last feature is particularly important in the case of Fonua: because Tongan like most Pasifika languages was exclusively oral, written documentation tells only one side of a two-pronged story of cultural relationships. When Tongan students can learn to use Tongan language in a more specialized way their capacity for communication, but only to other members of the cultural group, will be enlarged. And, when all the teachers and students in the Diploma, for example, learn to understand the subtle distinctions their capacity to understand and respect what some others have to contribute to education will be enlarged. They must never lose sight, though of the fact that language is for communication and that to depart from the prevailing English language is liable to lead to the failure of both teaching and learning. In summary, a Tongan concept of *Fonua* is distinguished by distinctive relations between language, teaching and learning.

Intercultural, Transcultural, & Multidisciplinary Approaches

For the writers, March 2003 was the beginning of a whole, collective and relational approach to language learning and teaching in the National Diploma in Teaching Early Childhood Education (Pasifika). As the 'Fonua: Lands, Languages, Learning and Teaching' suggests, the Tongan academic in the School, the Tongan academics from other institutions and the Tongan teachers in the Tongan community in relation with non-Tongan colleagues from inside and outside the School confronted the task of ending selfishness and individualism and focused on linguistic and cultural complexity, solidarity, mutual support, and wealth creation. To do so a Development Team was established in 3 parts all through 2003; the Pasifika Consultative Group (PCG) and the associated Pasifika ECE Sub-Group, and the Pasifika Educators Network We shall first consider the Pasifika Consultative Group and then the Sub-Group and finally the Pasifika Educators Network. The point to be highlighted is that the groups are inter-related and we cannot single out a primary force of development in the collective pedagogy in the Diploma.

Two pedagogical considerations underscored the PCG initiative. The first is that 'Pasifika' education, in the sense of Fonua, was absent in the prevailing approaches to teaching practice. And, the PCG was the creation to contextualize and speak about the coursework contained in the Diploma, the peoples' education and qualifications, and their own languages and cultures in a 'new' form of Pasifika Education. As well, a political consideration required speaking to by the Group because the Ministry of Education compelled the School to consult with Pasifika Peoples, internally and externally, throughout the development of the Diploma. That is why the membership of the PCG was drawn from across the Early Childhood Education, Primary, Secondary and Tertiary Education system, the business sector and the Pasifika cultural communities. In fact, the PCG consisted in representatives of the School's academic and allied staff. other academic institutions. Pasifika communities, the Indigenous Māori people in the university, the Early Childhood, Primary, Secondary and Tertiary sectors: Where appropriate members could be nominated from relevant National Standard Bodies. It is important to acknowledge the bi-lingual, bicultural knowledge and skills; the expertise and academic qualifications of the Pasifika membership of the PCG.

Inside the PCG, the Tongan, Samoan, Niue, Cook Islands Māori and Indigenous Māori educators, researchers, scholars, the New Zealand European lecturers, and the private education providers and

consultants began to listen to each other think about how to transform the instrumental approaches to teaching and learning that is concentrated amongst a few non-Pasifika and non-Indigenous hands. In this round-table, the assembly of academics and business people discussed, questioned and advised the staff on matters regarding Pasifika Education in the School and the Pasifika communities and vice versa. The members attended to the development of the Diploma and established relationships with Pasifika educators. academics, scholars, teachers and researchers in national and international entities. They advised the staff in the development of 'new' coursework and programmes and suggested curriculum change. On a final note, the PCG advised on industry and community demand for graduates, including future and potential areas for training. This is the great task that the people in the University, Pasifika and Indigenous cultural communities must face together.

In September 2003, the Pasifika Early Childhood sub-Group of the Pasifika Consultative Group was set up to meet the specific task of reviewing the First Year papers of the National Diploma from diverse cultural perspectives. The five highly qualified members represented the Samoan, Niue, Cook Islands Māori, Fijian and Tongan cultural communities. Through the ECE sub-group the School spoke to specific issues in Early Years Education and commenced the 3-fold relationship serving all the sectors of education and a range of Pasifika communities. In the School, the Pasifika ECE Sub-group and the Pasifika Educators Network met for three hours, fortnightly, to discuss feedback, staffing issues and complexities that arose from the coursework. Both the written feedback and verbal discussions have proven invaluable and useful in reviewing the content and outcomes of the Papers offered in the Diploma to ensure that the students' languages and cultures are sustained.

To meet the Ministry's requirement to consult with Pasifika communities, the Pasifika Educators Network (PEN) consisting in not only Academic and Allied staff members in the School but staff from across the Auckland University of Technology was introduced in November 2003. As a network PEN works closely with the School contributing to their relationship of Pasifika peoples and their consultation with communities regarding the Diploma. The consultative innovations included institutions such as the Fono or ceremonial meeting with each cultural community and the separate Samoan, Niue, Cook Islands Māori, Fijian, Tongan and Tokelau Early Childhood Associations. In the Tongan sense, a Fono is a town or village meeting that is officially convened (Churchward, 1959: 194). In this strict and solemn context, direction is provided the community by their officials and then debated until a consensus is reached. What is more, the Fono could take place with a specific ECE Association present at the same time as the community and that could include prospective students.

The Fono raises an interesting question that touches on the differences between the Ministry's approach to consultation and Pasifika peoples' ability to articulate themselves on difficult yet vital issues of importance in education. When customs such as oratory, prayer, sacred songs, and hospitality are practiced, does this mean that Fono is a more primitive form of consultation than has been developed by the Ministry? Of course, the belief is that a better approach to consultation with the Pasifika ECE Associations could be met in the Fono, rather than a Meeting merely for the 'experts' to present a list of facts to the Associations in the absence of the community. In the Fono, a real sociality – philosophy, history, leadership, direction, debate, cuisine, music, warmth, joy, humour, generosity and kindness - is spoken into the Diploma's consultation process and this piece of information illuminates the 'truth' that people are social beings. We are here far beyond the idea of the Pasifka communities desperately out of reach of the University and the Ministry of Education.

External Moderation of the Diploma is a requirement of the New Zealand Qualifications Authority, the New Zealand Teachers' Council and the Ministry of Education. In the view of the PCG, the present set of technologies for monitoring did not allow for the languages and cultures underpinning the curriculum for the Pasifika constituent of the Diploma to be scrutinized. So, falling out of the cultural institution called *Fono* was the recommendation from the Group to the School and its associated bodies to make plans for a collaborative approach to moderate the Diploma externally; the Pasifika module, in particular. The innovative idea for the collective approach to the moderation of the Diploma was developed in the PCG on July 22, 2005. In brief, the PCG's Tongan academic and community representative, the Indigenous Māori representative, the Niue and Samoan business consultants, the Fijian educator, 2 non-Pasifika teachers and the Ministry's appointed Monitor met on 29 November 2005 to moderate the Pasifika component in the Diploma wherein the inseparable forms of Research, Knowledge Generation, Cultural Sustainability, Policy advice and Curriculum innovation were discussed at length.

On the whole, the Fono held for the Moderation process was valuable and educational since the culturally appropriate context provided the power or strength for a group of committed people from diverse cultures and interests, to debate important aspects of the Diploma. The debate related to issues of access, utilization and cultural appropriateness of the approaches to teaching and learning as well as ensuring the programme's relationship to the regulations (Te Whariki and the Ministry of Education). The members agreed that, in spite of some major conceptual issues held by some of the teachers requiring attention, the Pasifika constituent has the potential to put into practice all the aspirations and requirements demanded of a high quality Early Childhood education programme for Pasifika children in Aotearoa-New Zealand. The coursework in the First year provides the underpinning for teaching and learning within Pasifika Early Childhood Centres (see Minutes, 29 November,

2005). The overall significance of the *Fono* as an External Moderation process is the spirit, energy and life force of collective pedagogy. In other words the power of collective pedagogy is a process of transformation that is about engendering anew.

The development of the Diploma necessarily required the imposition of economic value as the paramount value, and of the economic itself as an autonomous sphere, a 'play' of signs devoid of Pasifika languages and cultures. We understand this play to signify the virulent and relentless practice of alienation, of rendering Tongan, Samoan, Fijian, Niue, Tokelau and Cook Islands Māori people aliens in their indigenous homelands and the new land of Residency, and a world now fully infused with the floating logic of economic value. Looking back for a moment, though, the Diploma was endorsed by the Ministry of Education in July 2004. The first cohort of 15 students will complete the programme in 2006. The second cohort of 30 students was enrolled in August 2005. 40 students commenced the programme in 2006. In November 2005, the first whole, collaborative and relational External Moderation Fono took place. In these ways Pasifika cultural relations, Pasifika intellectuals, Pasifika teachers and private providers joined together to change the prevailing approaches to teaching and learning in the Diploma.

Following their intimate cultural approaches to teaching and learning as more desirable and worthy of support the writers are challenged then to endorse the view that: "The inability of Third World societies to reflect on their own experience and to invent appropriate solutions to their own problems does not come from their congenital inferiority nor from a backwardness, but results from the destruction by the West of their own coherence. The only superiority of the West is, indeed not that it has been able to control its environment (we know it is not the case and that we are perhaps heading towards ecological catastrophe) but that it has invented destructive material forms capable of ensuring domination over every other society and finally to impose on them its supreme value: economic development" (Latouche, citied in Arnoux, 2004: 142).

It has been very important to organize and mobilize the Development Team grounded on what we have called Fonua and on respect, dignity, integrity and responsibility over the approaches to language teaching and learning in the Diploma. And it has been important not only to organize but also to unite. Here we are now, united academics, teachers, researchers, business people in defense of our own languages and cultures. Importantly, we ought to/ should have not only unity amongst Pasifika cultural groups, but also that we must coordinate with the non-Pasifika and non-Indigenous staff. Every gathering, every event is a great lesson that allows us to exchange experiences and to keep strengthening Pasifika peoples and community-based early childhood centres. Culture, that is to say subjectivity and objectivity, is at the heart of Tongan people, Pasifika peoples and Indigenous peoples speaking our 'voices' in the National Diploma.

To be clear, we must return to ask ourselves if language teaching and learning, as they are being communicated in Aotearoa-New Zealand, leave 'Pasifika' peoples vulnerable and alienated in society. And, we must ask ourselves if development refers to capacity building or strengthening the potential of 'Pasifika' students' language and culture; rather than only sustaining English domination and technical virtuosity. Fortunately, we can put forward the idea that Fonua is a metaphor to develop and then advance Tongan and Pasifika people's understanding of our alienation in the education system. As a final point, we can say that culture has the power or strength to transform the instrumental relationship between education, research, knowledge transfer, development and wealth creation.

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When Language Talks

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Language analysis has reflected, through decades of study and application, the changing views and perspectives on the nature of language and the optimal methods of perceiving and understanding it. Decontextualized approaches to language include theoretical linguistics that perceive language as a set of rules with a view to prescribing the correct combinations. Historical linguistics focuses on the diachronic development of language and analyses textual components in relation to the historical evolution of syntactic traditions. Structural linguistics views language as a self-contained system that can indicate the value and meaning of its components through structural positioning.

Ferdinand de Saussure's ground-breaking principles provided new perspectives in language studies. Synchronic linguistics was introduced as a result of dissatisfaction with diachronic studies and their inability to account for language description and categories. A view on language as a signifying system was introduced and a division of structural relations in the language system was identified (Saussure, 1966). grouped horizontal division characterizing syntactic ordering under the syntagmatic category and vertical substitutive relations within the same word class under the paradigmatic category (ibid). This last principle paved the way for the later explorations of the notion of selectivity where from the range of alternatives in the vertical axis a choice is made to fulfill appropriate or effective meanings. As for the horizontal syntagmatic category, prescriptive methods underlined the importance of abiding by the correct structural rules, including loyalty to fixivity, in ensuring that "correct" applications of language constrains the structure and allow for no deviation.

Noam Chomsky (1957) championed a trend that focused on the formal description of the set of rules that define all the possible grammatical sentences of a language. The Standard Theory, also known as the Aspects Model in Transformational Generative Grammar (Chomsky, 1965), prescribed four basic components in language analysis. The base component of syntactic structures, also known as the deep aspect, the transformational component reflected in the sentence or surface structures, the phonological component defining the phonetic representation of pronunciation, and the semantic component allowing for interpretive semantics and dealing with the meaning of the sentences. The theta theory (Chomsky, 1980) dealing with semantic relationships prescribes that the lexical entry of a verb constrains the semantic or thematic roles associated with it in agent and patient positions. Government and binding theory identifies levels of abstract sentence categories that operate according to set rules of structures. *D-structures* deal with semantic constraints. *S-structures* deal with syntactic and grammatical constraints.

The abstracted models focus on language and the binding connections within its components in an implicit belief in the fixivity of these relations. Linguistic analysis from this perspective leads at best to the identification of the micro categories that combine to produce a sentence, adhering to the idealized forms in language production. Prescriptivism ends with the reproduction of standardized models of language structures. There is no room for deeper probing into the purposive manipulation of language and no interest in the consideration of instances of marked deviation from the set rules.

Studies conducted on graduates in an English Language and Literature programme (Al-Khatib, 2007) reveal the ability of students in their third and senior years to identify the linguistic performance of English learners with reference to categories of correct grammar (Sysoyev, 2001; Zoughoul and Hussein, 1985). Two-thirds of the informants (Al-Khatib, 2007), who were tutored from a theoretical perspective, were able to go beyond instructing idealized standardized forms and correct structural and phonologic rules of the language application. There was no aspect in their performance that delved into the interpretive semantic dimension to comment on optimal choices of structure and lexis. There was also no critical analysis of the deeper fluctuations that bring about the language forms. The performance of these students was characterized by maximum adherence to the set standardized forms in syntax and phonology. The remaining third took another perspective. These students had been challenged in their third and senior years through unabstracted models of language and applied linguistics courses that look at language in context. Their approach to language was more analytical and semantic-based (Al-Khatib, 2007).

Studies from anthropological linguistics and real life contexts emphasized the context bound language aspect in a reflective approach where the construction of language in use is bound to the properties of its context, in addition to its formal characteristics (Arnold, 2006). The works of William Labov (1997) on social class and the pronunciation of pre-vocalic ® in New York underlines the need to consider language practices as part of the social fabric that brings about distinctive linguistic features under specific social circumstance.

John Gumperz's studies (1997) brought to the fore the role of contextual influences of the speaker, interlocutor and situation on the language structures used. Issues on gender styles, adolescent styles and ingroup styles are added testimonials to the sociolinguistic influence in language selection. Dell Hymes (1997) extended earlier categorization on language proficiency to include not only what is

grammatically correct but also what is sociolinguistically appropriate.

Language analysis frameworks resulting from the unabstracted macro models of anthropological linguistics and sociolinguistics established the direct relations between the contextual influences and the selected grammar categories in corpus texts. Applied linguistics firmly situated language studies within the social perspective with a view to context as a determining factor that is reflected in the selected language categories.

Proponents of functional linguistics depart from the determinist perspective of macro-sociolinguistics in viewing language as fulfilling more dynamic roles than only reflecting the set macro context categories. Functionalism probes at language units with a focus on their role in the dynamic context of the discourse. Language in context is analysed as the complex mechanism through which the individual furthers his goals, negotiates his reality and constructs his situation. Language items are not seen as static products of a given reality where the role of the language user is limited to abiding by and reflecting contextual constraints. Functional linguistics underlines the purposive paradigmatic selection and syntagmatic arrangement of the language units beyond structural organization.

The analysis of language as the dynamic tool that is manipulated for optimal effect is the ultimate probing where the analyst develops sensitivity to ways of interpreting texts when language talks. Selections made within the field of the utterance functions to construct the ideological interpretation of the language units and the alignment of the language user. Categories included in the tenor of the text functions to position the interlocutors both hypotactically and paratactically. The selection of the mode underlines the perceived optimal channel of communication that could best transmit the intended message with maximum effectiveness.

Informants whose programme of study included the functional perspective developed sensitivity to evaluating the ways through which language is used to transmit specific messages, the ways through which language talks (Al-Khatib, 2007). They were able to critically assess the language choices as promoting implicit realities ad ideologies. Informants identified how texts are worked to position characters within the discourse and the readers and interlocutors using it. The critical awareness developed by these informants was also evident of their ability to identify ways in which the wider social and cultural context influence the interpretation of specific meanings and language use as a whole.

Functional linguistics invites linguists to intrepid new ways of dealing with language through the application of functional analysis to decode the myriad of the signifying processes of language and linguistic forms. Functional analysis opens up endless enquiry into the why and how of every structure in a critical approach.

Attempting to account for the ways through which language talks denotes a trend in language analysis that aims to decode and understand levels of language and ways of juxtaposing the units, phonologic, syntactic and pragmatic as well as the underlying rules that bring about all the metamorphosis. It is the new generation Functional analysis that takes language interpretation beyond what is said by mere words to how contexts are constructed through the complex analysis of the meaning of the discourses both spoken and written. It departs from the multiple predetermined conditions of the macro contexts to the functions of the negotiated meaning, displayed through the paradigmatic and syntagmatic choices to challenge the unspoken and exploit the unlimited potential of language.

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'Visiting locals' houses' and 'English without noticing': the nature and potential of informal language development

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The title of this paper reflects two connected aspects of the language learning aspirations of international students at the start of a 12-month masters programme in a British university. *Visiting locals' houses* reflects social aspects of language learning, which includes sustained interaction with British social networks, and the culture learning implicit in this multi-faceted experience. *English without noticing* captures a more cognitive framing of expected language learning: here the student envisions an English language immersion experience which will result in more effective language use as a result of less demanding conscious processing.

The focus on language development in this paper is one strand of a broader study, Socialisation and Learning in Applied Linguistics (SAIL), by a grant from the pedagogical fund of the Language Linguistics and Area Studies (LLAS) of the Learning and Teaching Support Network (LTSN). The aim of this research study is to understand social and informal learning practices and processes from socialisation (Watson-Gegeo and Nielsen 2003) and identity (Wenger 1998) perspectives. Informal learning includes:

- involvement in learning groups with classmates,
- participation in computer-mediated communication environments.
- · attending optional seminars and workshops, and
- discussions with tutors and other members of the academic community.

Language development of these advanced (IELTS 7 or equivalent) learners is a major part of this informal learning, both in terms of the expectations of the students themselves, and of the host programme and institution: Rea-Dickins et al (2007) found that language development was a major issue, both in terms of learning achievement and difficulty, for both students and tutors in such contexts. Previous studies have found that language skills shape other learning experiences in such programmes (Morita 2000; 2004), and also that such advanced learners progress in variable ways and at variable rates (Larsen Freeman 2006).

This study is informed by three linked theoretical perspectives. First, language learning is explored as a language socialisation process which involves engagement with cultural and social issues as well as language forms (Watson-Gegeo and Neilsen 2003; Shi

2006). Second, the language learning process is one of identity formation as a learning trajectory which is shaped by previous experience, perceptions of the learning environment, and interactions with significant others (Pavlenko and Blackledge 2004; Rea-Dickins et al 2007). Third, our understanding of the wider social environment which is particularly salient in constructing learning experiences, is informed by Wenger's notion of communities of practice (1998) and Ranson's learning society (1998).

In this paper we analyse the language and identity development of two learners - Chi and Lin - using data from their written assignments, interviews, ejournals, and narrative workshops. The emphasis in the analysis is on self report data. There are two reasons for this: first the participants are successful English learners, who have become English teachers, TESOL/Applied Linguistics postgraduate students, and so can comment analytically and insightfully on their language development. Second, the analysis examines language development in the context of socialisation in a new community of practice, so perceptions and constructions of learning processes and achievements are particularly important.

Chi is a learner whose sense of self is characterised by a strong sense of achievement. All her interactions with significant others – parents, teachers, tutors and peers in the current programme – reinforce the view that she is a successful learner. As a teacher she reflects this positive perspective on learning, always seeing potential to be developed, rather than deficits to be countered. Her sense of community is strong: she notes that she learns through communication both where she is the listener, and where she is the explainer. Her positive expectations of language development are reflected in the comments of tutors, a case of a self-sustaining virtuous cycle of expectation, effort and achievement.

Lin's experience of learning is one characterised by struggle. She recounts an ambition to be a successful English user and teacher, and a constant engagement with obstacles to realise this. Her view of her English reflects an awareness of shortcomings, and also a determination not to be identified by these. This means attributing problems to external factors, such as her learning experience in school and unavoidable L1 interference. She has come to avoid interactions in learning groups, resorting to struggle in isolation to meet the assignment requirements of her programme. For her, community is not the metaphor for support and motivation that it is for Chi: rather it is still a vision, a constant guiding a trajectory characterised by both struggle and self-belief.

The final section of this paper addresses methodological issues which have arisen in this study. These relate to strategies for linking data to theory; for aggregating case studies in developing language socialisation theory; and for drawing together self-report data and actual linguistic data from spoken and written language use.

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Interlanguage Requests in Academic Encounters

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Introduction

In the field of interlanguage pragmatics (ILP) there is now a substantial body of empirical studies which document how learners and native speakers differ with regard to speech act production (e.g. Blum-Kulka *et. al.* 1989, Hassall 2001, Hill 1997, Trosborg 1995). The present study is a 'single moment' study (Cook 1993, Rose 2000) which informs on speech act use and focuses on the pragmalinguistic aspects of advanced learners' pragmatic performance in a status-unequal (student/tutor) scenario.

The study compares interlanguage requests of advanced ESL learners with British native speakers on a written discourse completion task (WDCT). Despite the extensive criticisms of WDCTs in the literature (Bou-Franch & Lorenzo-Dus 2005, Golato 2003, Mey 2004), specifically in relation to the construct validity of such tasks for examining discourse features of pragmatic performance, the present study supports Kasper & Rose' (2002) contention that: "when carefully designed, WDCTs provide useful information about speakers' pragmalinguistic knowledge of the and linguistic forms strategies bv communicative acts can be implemented and about their sociopragmatic knowledge of the context factors under which particular strategic and linguistic choices are appropriate" (Kasper & Rose 2002:96). As such, the findings of the study are not treated as findings deriving from actual discourse, but rather as findings relating to what speakers tend to view as being pragmatically appropriate linguistic behaviour.

Subjects and Procedure

Two participant groups comprising a total of 187 students took part in the present study. These were 95 ESL learners and 92 British English native speaker students of undergraduate and postgraduate study in UK higher education institutions. More specifically, the learner group consisted of advanced mixed-L1 learners. Eighty three of the ESL learners were native speakers of Greek. The remaining twelve learners taking part in the study comprised three pairs of Japanese and three pairs of German learners who completed the task in pairs. Thus a total of 89 ESL learner responses were documented and analysed. These participants had spent an average of 19.1 months in the target language community and their age ranged from 17-38.

The British sample's age ranged from 17-46. In order to avoid influences from other cultures, no ethnic-minority students were included in the study. Of the 92 native speaker sample, six of the students completed the tasks in pairs, thus a total of 89 native speaker responses were documented.

The discourse completion task was designed to elicit requests in writing on a status-unequal (student/tutor) scenario. Subjects were given a short description of the scenario, which specified the setting, the familiarity and the social power between the participants and were then asked to complete the dialogue by performing a request for an assignment extension from their lecturer.

Results and Discussion

Each of the elicited requests was analysed and coded internal modification regards to (both lexical/phrasal downgraders and syntactic downgraders), external modification (external mitigating supportive moves added to the head act), and request perspective. The percentage frequencies of this analysis were calculated and statistically tested in order to establish any statistically significant differences. More specifically, Chi-square tests of Independence, being suitable for nominal data, were used for the statistical analyses.

The results which derived from the present study can be summarised as follows:

- Learners overused zero marking, and underused the politeness marker 'please', the cajoler and the consultative device in internal modification as compared to NS.
- Learners used fewer apologies but overused imposition minimisers and preparators in external modification as compared to NS.
- Both groups employed the grounder as the most frequent external modification device.
- NS used discourse orientation moves interpersonally to signal shared knowledge, indicate common ground, & focus topic of request.
- NS made more frequent use of impersonal perspective which combined with a range of internal mitigation devices and formulaic constructions.

The findings relating to the learners' overuse of zero marking through lexical/phrasal downgraders is consistent with findings from other studies (Economidou-Kogetsidis 2008a, 2008b *in press*, Hassall 2001, House and Kasper 1987, Trosborg 1995, Otcu & Zeyrek 2006, Woodfield 2007) which have also supplied evidence that intermediate and advanced learners internally modify their requests less frequently than native speakers. In explaining this finding, appeals were made to the linguistic competence required in internal modification (Bardovi-Harlig 1999), the extra processing effort required to add complex structures to bare head acts (Trosborg 1995) and to the learners' lack of extra inferencing capacity regarding the

mitigating function of syntactic downgraders (Faerch & Kasper 1989).

The result concerning the learners' underuse of the marker 'please', however, contradicted the findings received from Fearch and Kasper (1989), House (1989) and Barron (2003). In these studies the learners were found to overuse the politeness marker, something which was seen as resulting from the marker's double function as illocutionary force indicator and transparent mitigator. In the present study, the majority of learners were of Greek origin and thus it is possible that crosscultural influences were at play. The Greek marker 'parakalo' (please) is employed more commonly with bald-on-record strategies and more specifically with direct questions and want statements (Economidou-Kogetsidis 2005, 2008a, 2008b in press) in contrast with the use of 'please' in English which is commonly used with conventionally indirect requests. The learners were also found to significantly underuse the apology as a supportive move for their requests. This result was also associated with pragmalinguistic transfer as in Greek society, where the emphasis is on the positive rather than negative aspect of face (Brown & Levinson 1978, 1987), overt expressions of apologies and thanks are often seen as unnecessary or reserved for what are considered very serious offences (Economidou-Kogetsidis 2008b, in press).

Significant differences were evident in the use of preparators and imposition minimisers as the learner group this time significantly overused these devices by preparing the hearer for the ensuing request and by trying to reduce the imposition placed on the hearer by their request. It was argued that the learners' overreliance on such supportive moves may find its roots in the learners' lack of confidence resulting from their non-native linguistic proficiency (Economidou-Kogesidis 2008b *in press*) and their social role as overseas students.

Results also confirmed that the grounder is perhaps the most frequent supportive move, not only in native English requests but also in interlanguage requests, a finding which agrees with the evidence from several interlanguage studies (Blum-Kulka & Olshtain 1986, Faerch & Kasper 1989, Hassall 2001, Schauer 2007, Woodfield 2004). This result also seems to point towards the fact that the grounder is acquired by learners quite early on, probably due to the fact that offering explanations and/or justifications for the request does not require knowledge of idiomatic (i.e. native-like) use and simply involves the construction of a new, often syntactically simple clause (Hassall 2001:274).

A closer examination of the data collected interestingly revealed qualitative differences regarding the content of the grounder offered. Bardovi-Harlig (2001) notes that content is one of the ways in which NSs and NNSs may differ in their contribution, In the present study, our data reveal that while the native speakers generally employed rather vague explanations and reasons, the learners went into a much greater detail by providing

specific reasons and explanations, primarily concerning matters of poor health, family emergencies and so on. Reference to the value of honesty was also made on the part of some learners.

The final finding relates to differences in learner and native speaker frequencies of use of impersonal perspective. The native speakers made significantly greater use of impersonal perspective and a closer qualitative investigation revealed that the native speaker data coded for impersonal perspective related to formulaic patterns around the lexical item 'chance' (e.g. 'Is there any chance for an extension?...). In turn, these constructions in the native speaker corpus were evident in tandem with internal mitigation devices such as negative supposition, past tense/aspect marking, conditional structures or elliptical forms. This finding was in line with Ellis' (1992, 1997) and Rose' (1992) studies which also observed very few utterances encoding a joint or impersonal perspective in the learner corpus of their studies.

Conclusion

The present study compared the pragmalinguistic knowledge of speech act use of advanced ESL learners and British English native speakers in a status unequal situation and identified significant differences in internal and external modification patterns and in the formulation of perspective in request production.

The findings of this study strongly suggest that even at advanced levels of proficiency and in a study abroad context, ESL learners' pragmatic performance may reveal important pragmatic deviations from that of native speakers. These pragmatic deviations on the part of the non-native speakers can have serious implications for ESL learners, who, by virtue of living in the target environment (e.g., as university students), have an increased need for successful interaction.

This study therefore has implications for the learning of pragmatics by advanced learners during study abroad, especially through exposure to the informal learning environment. Implications are also evident for the development of pragmatic competence in ESL pedagogy in more formal settings.

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Practicing Paraphrasing Skills in Online EAP Reading Programs

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Recent studies in the area of written discourse analysis in English (Batista, 2006; MacMillan, 2006, MacMillan, 2007) suggest that paraphrasing skills, marked by the observance of instances of lexical cohesion in text, play an essential role in the concept of effective reading reflected on the TOEFL® (Test of English as a Foreign Language), a largely accepted standardized English proficiency test designed to determine whether the language skills of international students applying to North American colleges or universities are adequate for enrollment into the selected programs of study.

In reporting on the results of the analysis of 608 fixed-response TOEFL® reading comprehension items using an adapted version of Hoey's (1991) lexical repetition model, MacMillan (2007) concluded that all question types on the test, in its paper-based, computer-based, and internet-based versions, involve the identification of different forms of lexical repetition connecting question stems and/or correct options to specific sentences in the related passages.

In another application of Hoey's (1991) repetition model, Károly (1999) demonstrated that a modified version of the same analytical system could be used to evaluate the quality of written discourse structure in argumentative texts produced by advanced EFL learners. Results of her analysis indicated that high-rated and low-rated essays differ significantly in a number of variables related to both the types of cohesive devices employed by learners and the combination of semantic connections between sentences.

The aim of this paper is to propose the use of an adapted version of the lexical cohesive analytical system used in MacMillan (2007) for the practice of academic reading skills in electronically delivered programs. More specifically, this paper introduces elearning tasks that target the development of paraphrasing skills by means of the identification of different categories of lexical repetition in text.

The following section of this paper will offer a brief outline of the lexical cohesive analytical system used in MacMillan (2007) and its proposed simplified model for use in EAP reading lessons. This will be followed by a detailed description of suggested online reading activities focusing on two basic categories of paraphrasing, namely *context-independent* and *context-bound paraphrasing*. The concluding section will discuss means of applying the same strategies to the practice of academic writing skills.

A Theory-based System for the Analysis of Lexical Relations in Text

In his widely acclaimed book, *Patterns of Lexis in Text*, Hoey (1991) proposed that different forms of lexical repetition combine to organize text. His study has provided evidence that instances of lexical cohesion mark points of reference, or 'links', between sentences. The same research has also demonstrated that the observation of repetition patterns in text allows for, among other things, the identification of both adjacent and non-adjacent sentences which have a significant semantic connection.

MacMillan (2007) has devised a modified version of Hoey's (1991) repetition model and applied it to the identification of bonds between reading comprehension questions and specific portions of the related passages. The resulting taxonomy, represented in Figure 1, below, involves seven types of lexical relations, as well as one set of cohesive devices which are not lexical in nature but which also make it possible for repetition to take place.

Figure 1: Link Taxonomy

LINK TAXONOMY	7	·	
Lexical Relations			
Lexical Repetition	•	Simple	
	•	Complex	
Synonymy	•	Simple	
	•	Complex	
Antonymy	•	Simple	
	•	Complex	
Superordinate Repetition			
Hyponymic Repetition			
Co-Reference			
Labeling			
Non-lexical Relations			
Substitution	•	By pro-forms	
	•	By Ø (Ellipsis)	

The manner in which each of these types of links contributes to the identification of semantic bonds between reading comprehension questions and related passages will now be examined.

The first type of link considered in MacMillan (2007), 'lexical repetition', may be classified as either simple or complex. 'Simple lexical repetition' (henceforth, 'simple repetition') involves the exact repetition of a lexical item (e.g.: drug - drug), or its repetition by means of an inflected form (e.g.: drug - drugs). 'Complex lexical repetition' (henceforth 'complex repetition'), on the other hand, involves the repetition of an item by means of a derived from (e.g.: drug (n.) – drugged (adj.)), or by the same form with a different grammatical function (e.g.: drug (n.) – drug (v.)).

The second category of repetition, 'synonymy', involves the repetition of the idea represented by a given lexical item, rather than its form. In common with lexical repetition, instances of synonymy may be either simple or complex. 'Simple synonymy' occurs

whenever "a lexical item may substitute for another in context without loss or gain in specificity and with no discernible change in meaning" (Hoey, 1991, p. 62). An example of 'simple synonymy' is the repetition of the meaning in the term *able* in one sentence by means of the term *apt* in a different sentence. In its complex form, synonymy involves items which represent equivalent ideas, but which are part of different word classes. An example of 'complex synonymy' is the repetition of the meaning in the term *able* in one sentence by means of the term *aptitude* in another.

The third type of lexical relation considered in MacMillan (2007), 'antonymy', is also classified as either simple or complex. 'Simple antonymy' involves the repetition of the concept of a given item by means of an antonymous term of the same word class. An example of 'simple antonymy' is the repetition of concept in the term violent in one sentence by means of the contrasting term peaceable in another. 'Complex antonymy,' on the other hand, involves antonymous terms which are part of different word classes, such as violent and peace. Note that, following Jones (2002), the term antonymy is here used in "its broader sense, referring to any pair of words which could intuitively be recognized as 'opposites'" (p.1). Therefore, the antonymy category includes not only gradable pairs, such as *cold – hot*, but also non-gradable pairs, such as dead - alive, the latter being a category which certain linguists, including Lyons (1977) and Cruse (1986) have termed 'opposites.'

'Superordinate' and 'hyponymic repetition' account for cases when two items are interpreted as having identical referents. These links occur when the items sharing the same referent are connected by a lexical relation of class membership. 'Superordinate repetition' involves a general term which may be said to designate a class of which the earlier item is a member. One example of 'superordinate repetition' is the repetition of the term painting in one sentence as the more general term art in a subsequent sentence. Conversely, hyponymic repetition involves a specific term which may be said to be a member of, or included in, the class designated by the earlier item forming the link. Therefore, an example of 'hyponymyic repetition' is the use of the more specific term painting to refer back to the term art in a previous sentence.

Co-reference links, in common with 'superordinate' and 'hyponymic repetition,' involve items sharing the same referent. Unlike those, however, co-reference items do not hold a lexical relation, and, thus, the link between them is context-dependent. An example of a co-reference link is the repetition of *Elizabeth II* in one sentence as *the Queen* in a subsequent sentence.

The 'labeling' category is based on Francis' (1994) description of 'retrospective labels'. The term 'retrospective label' refers to a nominal group which encapsulates a stretch of discourse and indicates to the reader how it should be interpreted. The same author (op.cit.) pointed out that these labels are more often than not formed by deictics, such as *this, that* or *such*,

followed by a head noun, which is unspecific in nature, such as Halliday and Hasan's (1976) 'general nouns' (p. 27). Francis (1994) added that a large number of retrospective label head nouns are "metalinguistic in the sense that they label a stretch of discourse as being a particular type of language" (p. 89, original emphasis). An example of a labeling link is the use of the phrase this question to refer back to a direct or indirect interrogation within a previous sentence.

Finally, Substitution is the only type of link in this taxonomy which is realized by grammatical members of closed system whose function is to stand in, or substitute for, lexical items. It should be noted that the term *substitution* is here used following Hoey (1991) and Quirk (1972). Most of the items accounted for by this category are described by Halliday and Hasan (1976) as instances of reference. Citing Emmott (1989), Hoey (1991) justified his choice by arguing that "a pronoun, for example, does not refer to an earlier item, but co-refers with the earlier item to something real or imaginary outside the text" (p. 71). However, the differences between Halliday and Hasan's reference and Hoey's substitution go beyond the realm of terminology. In addition to personal and demonstrative pronouns, Halliday and Hasan (1976) include demonstrative adjectives, modifiers, and the definite article the in their reference category. Because the function of these additional items is largely to draw attention to the givenness of one or more lexical items, rather than to stand in for them, they have not been included in Hoey's (1991) categorization, or the present study. One exception in this regard is the use of the demonstrative adjectives this, that, these, and those to modify a noun which is not a lexical repetition or a paraphrase of a previous item. These instances fall under the labeling category discussed above.

Halliday and Hasan (1976) used the term 'substitutes' to refer to a small class of items, some of which are also included in Hoey's (1991) categorization. One of these items is *one*, when used as a nominal head accompanied by modifiers, as in *the first one* and *another one*. When used by itself, however, *one* would not count as a Substitution link. Rather, it would be treated as accompanying Ellipsis (discussed below).

Other items accounted for in the substitution category as presented in this paper are *do* (*it/the same/this/likewise/so*); the clausal *so* and *not*, as in *they said so* and *they said not*; and (*the*) *same*, when not accompanying an item (repeated or otherwise).

One final instance of substitution considered in this study is 'ellipsis', where Ø substitutes for a lexical item. Consider the following example drawn from the sample text in Hoey (1991, p. 227). Sentences are numbered for ease of reference.

[1] It is possible to predict three **reactions** every time a major company, like Barclays Bank, decides to withdraw from the South African economy.

[2] The first \emptyset is that the disinvesting firm will insist that its aim is primarily economic and only secondarily

political because few businessmen want to admit to yielding to political pressures.

Here, \emptyset , stands in for *reaction* and acts as the second member of the substitution link formed with *reactions*, in Sentence 1.

Hoey (1991) argued that substitution items, "while connecting certain sentences, obscure the connections between other sentences" (p.42). Thus, in order to allow for a thorough analysis to be carried out, all sentences in the text must be effectively rendered contextually more neutral. This may be done by replacing non-lexical cohesive features, as well as ellipsis, with the full forms for which they are a shorthand. To exemplify, consider the following sentence (Hoey, 1991, p. 95) followed by its adapted, formatted version (Hoey, 1991, p. 251) with full forms in square brackets:

[26] If it were correct, the writers of political theory would need to be themselves past masters in the art or governing, and statesmen would need to apprentice themselves to them in order to learn their job.

[26] If *<it>* [the entire conception of politics as an art and of the political philosopher as the teacher of it] were correct, the writers of political theory would need to be themselves past masters in the art or governing, and statesmen would need to apprentice themselves to them in order to learn their job.

MacMillan (2007) has applied the link taxonomy discussed above to the identification of semantic bonds, marked by an above average number of lexical links, between reading comprehension test items, specific sentences in the related passages, and correct options. Consider the following example, based on the introduction to Chapter 2 of *Geodesy for the Layman*, maintained by the U.S Defense Mapping Agency and available from the National Geodetic Survey web page: www.ngs.noaa.gov.

According to paragraph 2, why may the curvature of the earth be disregarded in plane-table surveys of cities?

- a. Because the Pythagorean spherical concept is not suitable for simple mathematical calculations.
- Because it does not affect accuracy in determining the relative distance between specific points in small areas.
- c. Because a flat surface is an acceptable representation of the true figure of the earth in geodetic surveys.
- d. Because a plane surface provides a more exact figure in astronomical and navigational computations than the sphere does.

(MacMillan, 2007, p. 84)

Each of the options can be joined to the question to form a statement the validity of which can be assessed by means of the identification of a considerable number of links which bond with one or more sentences in the excerpt indicated in the question, namely Paragraph 2. Paragraph 2 is formed by

Sentences 6 to 12. The statement formed by the correct option, Option b, bonds with one of the sentences in this excerpt, Sentence 12, by means of as many as nine links, as demonstrated below. Individual links are numbered for ease of reference.

- [b] The curvature¹ of the earth² may be disregarded³ in <u>plane-table surveys</u>⁴ of cities because it does not affect accuracy⁵ in determining⁶ the <u>distance</u> between⁷ specific points⁸ in small areas⁹.
- [12] For such <u>small areas</u>⁹, <u>exact</u>⁵ <u>positions</u>⁸ can be <u>determined</u>⁶ <u>relative to each other</u>⁷ Ø⁴ <u>without considering</u>³ the size and <u>shape</u>¹ of the total <u>earth</u>².
 - 1. curvature → shape (Superordinate Repetition)
 - 2. earth → earth (Simple Repetition)
 - 3. disregarded → without considering (Simple Synonymy)
 - plane-table surveys → Ø> [in plane table surveys]
 (Ellipsis)
 - 5. accuracy → exact (Complex Synonymy)
- 6. determining → determined (Complex Repetition)
- 7. distance between → relative to each other (Complex Synonymy)
- 8. specific points → positions (Simple Synonymy)
- 9. small areas → small areas (Simple Repetition) (MacMillan, 2007, p. 85)

Hoey's (1991) repetition model, on which the link taxonomy discussed above is mainly based, was originally devised to identify points of reference between sentences within mainstream, non-narrative texts. Hoey (1991) has established three links as the minimal number of references for two sentences to be considered significantly connected, or *bonded*. However, this number may vary depending on the relative length and lexical density of the text in question, the cut-off point being marked by an above average degree of repetition cases.

Once links are recorded and bonds between sentences are established, *nets*, or sets of bonded sentences, can be identified. These nets allow for the identification of marginal and central sentences, as well as topic opening and topic-closing sentences. Marginal sentences are characterized by a very low number of bonds formed with other sentences. Conversely, central sentences are marked by an above average number of bonds formed with other sentences. Finally, topic-opening sentences are characterized by forming most or all of their bonds with subsequent sentences, whereas topic-closing sentences form most or all of their bonds with previous sentences.

One possible means of simplifying this lexical cohesion analytical model for use in reading lessons is by interpreting it as a passive paraphrasing system. The eight different instances of lexical cohesion represented in the link taxonomy may be grouped into two basic categories of paraphrase, namely *context-independent* and *context-bound paraphrase*, as shown in Figure 2.

Figure 2: Paraphrasing System

PARAPHRASING SYSTEM			
Categories of Paraphrase			
Context-	•	Simple Repetition	
independent	•	Complex Repetition	
	•	Simple Synonymy	
	•	Simple Antonymy	
	•	Superordinate Repetition	
	•	Hyponymic Repetition	
Context-bound	•	Complex Synonymy	
	•	Complex Antonymy	
	•	Co-Reference	
	•	Labeling	
	•	Substitution	
	•	Ellipsis	

Context-independent paraphrases are marked by instances of lexical cohesion which are more readily observed and only marginally text-bound, i.e., the connection between the lexical links involved is often not limited to the context in which they figure in the text. Instances of repetition of this kind include: Simple and Complex Repetition, Simple Synonymy, Simple Antonymy, as well as Superordinate and Hyponymic Repetition.

Context-bound paraphrases are marked by types of links which are inherently text-bound and which require the identification of either low-level or high-level text-based inference. Low-level text-based inferences involve the identification of referents, which are often represented by instances of Substitution, Ellipsis, Co-Reference, and Labeling. High-level inferences, on the other hand, involve deductions stemming from information implied but not directly stated in the passage. These are often represented by instances of Complex Synonymy and Complex Antonymy.

The following section will demonstrate how this paraphrasing system may be applied to the development of academic reading skills by means of interactive online activities.

Interactive strategies for the practice of reading skills in online EAP programs

This section features suggestions to incorporate interactivity into the teaching and practice of passive paraphrasing skills in electronically delivered courses. Suggested content and tasks are presented as forming a full unit in an introductory level EAP program. It is here assumed that learners have been previously guided through the basics of learner-interface interaction.

The unit contains two reading texts, each of which introducing the basic features of one of the paraphrasing modes discussed in Section 2, above. Cognitive activity is encouraged by means of learner-content interaction. Figure 3 includes an example of an activity within the text introducing context-independent paraphrases.

Figure 3: Learning Activity within Reading Text 1

Look at the following paragraph⁵.

Can you pinpoint in which other sentences the highlighted portion in Sentence 1 reoccurs in the paragraph?

What forms of repetition are involved?

[1] In technical and encyclopaedic literature one can find somewhat different information about when the word "psychology" was formed and who was the first to use it. [2] In the main psychological and philosophical dictionaries, textbooks, and leading world encyclopaedias there are for the most part three different opinions of the origin of this term which, as the word denoting scientific or philosophic dealing with the phenomena of psychic (subjective, conscious) life, has now come into very wide use. [3] All the three names connected with the formation of the term "psychology" are the names of the people of German origin from the 16th century. [4] Two of them are of little significance: Rudolf Göckel and Otto Casmann, while the third is very famous and generally known: Filip Melanchton.

Show all reoccurrences

Here, learners are led to identify clusters of lexical repetition and think about the individual instances of cohesion creating the context-independent paraphrases. Feedback lines appear as learners click on selected portions of the passage. Feedback generated by incorrect choices includes: "Sorry, this is not the correct choice. Try to find excepts that combine alternatives for each of the individual words in the highlighted phrase." Correct choices, namely "the origin of this term," in Sentence 2, and "the formation of the term 'psychology'," in Sentence 3, generate the following feedback lines, respectively: "Excellent job! Here, when ... was formed reoccurs as the origin, and the word psychology as this term;" "Very good! Here, was formed reoccurs as the formation, and the word 'psychology' as the term 'psychology'." The button "show all reoccurrences" highlights the correct choices and provides the individual instances of cohesion forming the paraphrases as shown in their respective feedback lines.

The reading texts are followed by content review and practice through asynchronous delivery. In this portion of the lesson, knowledge construction is encouraged by means of learner-learner interaction in a discussion board. Figure 4 shows the task used to generate the discussion. The full passage used in this task may be found in the Appendix.

⁵ The passage used in this task consists of an excerpt taken from Krstic's (1964) *Marko Marulic -- The Author of the Term "Psychology"*.

Figure 4: Guidelines for Discussion about Reading
Task

Look at the following reading comprehension question based on the *Figure of the earth* passage.

Identify the correct option and justify your choice by a) mentioning which sentence(s) in the passage it paraphrases, and b) pointing out the individual semantic connections involved.

Make sure to comment on responses posted by your classmates.

According to paragraph 2, why may the curvature of the earth be disregarded in plane-table surveys of cities?

- a. Because the Pythagorean spherical concept is not suitable for simple mathematical calculations.
- b. Because it does not affect accuracy in determining the relative distance between specific points in small areas.
- Because a flat surface is an acceptable representation of the true figure of the earth in geodetic surveys.
- d. Because a plane surface provides a more exact figure in astronomical and navigational computations than the sphere does.

In this task, learners are encouraged to identify which sentence(s) in the passage are central to the reading comprehension question, as demonstrated in Section 2, above. The instructor's role in this discussion is to prompt learners to express whether they agree with responses posted and to offer suggestions to peers. Some feedback may be provided, if necessary. However, in order not to hinder further discussion, the instructor should refrain from identifying the correct option at this point.

The unit is concluded with an online quiz, or short fixed-response reading comprehension test. The first question on the quiz is the same used in the discussion board. When clicking on the correct option, learners are shown a feedback line similar to those used in the learning activity shown in Figure 3, above. The remaining questions should focus on the identification of context-independent paraphrases in order to give learners further opportunities to practice the recognition of less obvious instances of cohesion.

The section that follows will briefly discuss how the paraphrasing strategies exemplified above may be applied to the practice of academic reading skills.

Applying the Practice of Paraphrasing to the Development of Academic Writing Skills

The practice of passive paraphrasing skills, as discussed in Section 3, above, may be followed by the practice of active paraphrasing skills, by means of the

creation of semantic equivalence using appropriate forms of lexical cohesion.

As a first example, Figure 5 shows how the reading activity in Figure 3 may be modified to target the production of appropriate forms of lexical repetition.

Figure 5: Guidelines for Discussion about Writing Activity

Rewrite the following paragraph replacing unnecessary repetition with appropriate paraphrases.

Make sure to comment on responses posted by classmates.

[1] In technical and encyclopaedic literature one can find somewhat different information about when the word "psychology" was formed and who was the first to use the word "psychology". [2] In the main dictionaries, psychological and philosophical textbooks, and leading world encyclopaedias there are for the most part three different opinions of the origin of the word "psychology," which, as the word denoting scientific or philosophic dealing with the phenomena of psychic (subjective, conscious) life, has now come into very wide use. [3] All the three names connected with the formation of the word "psychology" are the names of the people of German origin from the 16th century. [4] Two of the three names connected with the formation of the word "psychology" are of little significance: Rudolf Göckel and Otto Casmann, while the third the name connected with the formation of the "psychology" is very famous and generally known: Filip Melanchton.

Here, selected items in the original text have been replaced with multiple instances of simple repetition. In this new activity, learners are required to replace redundant forms with appropriate paraphrases and then discuss their choices with their peers. After learners have posted their responses on the discussion board, the instructor may present the original text for comparison. However, students should be encouraged to see the original paraphrases not as 'the key' to the exercise, but as examples of possible appropriate semantic connections in that specific context.

Campbell (1990, cited in Jordan, 1997, p. 171) has pointed out that an important aspect of academic writing is "the ability to integrate information from previous researchers in relevant areas of study." Leki and Carson (1994) have, in turn, recommended that, EAP writing classes encourage learners to integrate personal opinions and experiences with external sources of information. The interactive strategies discussed in this paper may be used to design writing tasks in which learners practice the use of appropriate paraphrases when integrating information from different sources.

For instance, two short passages discussing opposing views on one specific subject may be used as the basis for essay writing. Directions should lead learners to synthesize information from both passages to support a given argument. Finally, in pairs, students may be encouraged to comment on each other's use of paraphrase to a) refer to information taken from the reading passages, and b) contribute to the cohesiveness of their essays.

Conclusion

This paper has introduced a paraphrasing system based on the identification of different categories of lexical repetition in text. Different interactive e-learning tasks have been proposed as a means of applying paraphrasing strategies to the development of academic reading skills. Finally, suggestions were made as to how to adapt the use of the same strategies to the practice of academic writing skills.

Appendix – Figure of the Earth

The expression "figure of the earth" has various meanings in geodesy according to the way it is used and the precision with which the earth's size and shape is to be defined. The actual topographic surface is most apparent with its variety of land forms and water areas. This is, in fact, the surface on which actual earth measurements are made. It is not suitable, however, for exact mathematical computations because the formulas which would be required to take the irregularities into account would necessitate a prohibitive amount of computations. The topographic surface is generally the concern of topographers and hydrographers.

The Pythagorean spherical concept offers a simple surface which is mathematically easy to deal with. Many astronomical and navigational computations use it as a surface representing the earth. While the sphere is a close approximation of the true figure of the earth and satisfactory for many purposes, to the geodesists interested in the measurement of long distancesspanning continents and oceans-a more exact figure is necessary. The idea of flat earth, however, is still acceptable for surveys of small areas. Plane-table surveys are made for relatively small areas and no account is taken of the curvature of the earth. A survey of a city would likely be computed as though the earth were a plane surface the size of the city. For such small areas, exact positions can be determined relative to each other without considering the size and shape of the total earth.

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Vocabulary in an EFL classroom

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Despite our increasing knowledge on vocabulary and its learning and teaching, the reality in a classroom may still be somewhat more traditional. This paper looks at how lexical knowledge is portrayed in an EFL classroom and in pupils' ideas of words. The data derives from a longitudinal study that investigated the development of children's metalinguistic awareness during their first six years at school. This paper concentrates on exploring Finnish 4th grade English classroom learning of new verbs. The study considered empirical evidence from children's interviews, classroom observation, and used textbooks and other materials. The participants (N=16) were 9-10 – year-olds in their second year of English studies.

Children's metalinguistic awareness in interviews

In interviews that were carried out in the 1st grade and again in the 4th grade the participants were asked about various metalinguistic terms. Not surprisingly, they did not always share the same ideas with their teacher. For instance, they thought that *to walk* cannot be a word because it is a verb, and *a dog* cannot be a noun because it is a word. Even though the children encounter various metalinguistic terms in their English as well as Finnish classes, and the teaching materials, they have not yet quite grasped the hierarchy or simply, what different terms refer to.

On the other hand, there was much heterogeneity as some children showed to be quite aware of linguistic structures and their labels, and were able to explain, for instance, the basics of the English article system. In addition to heterogeneity within the group, individual participants showed great inconsistency and originality in their logic. For example, a pupil, who was prompted with several words and asked if they were nouns or not, rejected all proper nouns because they were names. When asked to give an example of a noun, the response was *Eric*.

Verbs in the classroom

Not surprisingly, when the teacher introduced a set of new words (verbs of movement) to the class, she used metalinguistic terminology, expecting everyone to be familiar with it. This led to several misunderstandings, some of which were left unnoticed by the teacher. There were, however, interesting flashes of confusion from the pupils' part that the teacher had to respond to:

Example 1

Simo: I am swim.

Teacher: Ei kun tässä jätetään se am-sana pois.

No, here you leave the word 'am' out.

Since the aim of the lesson was to learn and practise new verbs, different verb structures were not dealt with, and this is probably why the teacher did not explain the usage of different verb phrases any further. However, this kind of blurring of what a word/lexical chunk/grammatical structure is perhaps will not help to root out pupils' confusion.

When practising the new verbs in the class, they were seen mostly as separate, single items and not part of any sequences or structures. However, different vocabulary teaching strategies (see e.g. Schmitt 1997, Thornbury 2002) were applied by the teacher and the verbs received a very versatile treatment when it came to the tasks. Even though the pupils did not necessarily understand what a verb is, they got to know the mother tongue equivalent of e.g. *jump*, they saw pictures of people jumping, they saw the word written, heard it several times, and they also practised jumping themselves.

Much of vocabulary studies have focussed on the depth and width of knowing a word (Nation 2001, Read 2004). The classroom life may not recognise six or so different levels of knowing a word, despite practising words from several angles. Knowing a word still means being able to produce the word in isolation when given the L1 equivalent, or being able to reproduce phrases that were in the textbook. A good example of this is a sample from an exam where the participants were asked to fill in a cartoon with suitable cues. The cartoon was a copy from their textbook. Help me! was considered wrong by the teacher. The expected (textbook) answer was I need your help! Even though the deep meaning of the two expressions is approximately same, and the pupil had written his answer correctly and even included the exclamation mark, he was not given any points for his answer. This reflects the strong emphasis on form rather than meaning that still prevails in many materials and in the classroom, and also unnecessary heavy reliance on the textbook. What is important in learning is perhaps not to be able to produce new expressions but to repeat those heard/read in the class. This is also resonated in the exercise books: although task types are quite versatile, they concentrate on treating words as objects of learning rather than as something that might have a function in real life.

This same concept of vocabulary learning can be seen in the classroom discourse:

Example 2

Teacher: Laskin teidän kolmannen luokan kirjasta, että siellä tuli jo nelkytviis verbiä ja näistä

tulee nyt kuusi lisää.

I checked your 3rd grade book and you have already encountered forty-five different verbs and these add another six.

Vocabulary learning does not appear to be about being aware of the different dimensions of a word's meaning, or not necessarily even about being able to use a word in any particular context, but to be able to list as many words as possible. Adding to the lexicon as a word list is a concrete target that is perhaps also easy for the young pupils to realise and perceive. The goals of learning can then also be easily checked if, for instance, the students are simply asked to produce an equivalent for a L1 word, a task that was the most commonly found in the data of this study.

The examples above only describe one classroom and cannot be generalised. However, they do reveal that although vocabulary knowledge and learning have been discovered to be much more complicated than mere L1-L2 wordlists, the message has not reached everyone, or is not applied in everyday teaching. Furthermore, the heavy reliance on metalinguistic terms in teaching and in materials adds an unnecessary burden to students. Some students learn regardless, but poorer students do suffer from this terminology jungle. If the structure and functions, and even the very essence of words are explained through terms the pupils do not comprehend, their gain from language classes cannot be optimal.

Example3

Interviewer: mikä on substantiivi?. muistaksää?

Maria: en. en oo hyvä näissä.

Interviewer: What is a noun? Do you remember?

Maria: No. I'm not good at these.

Example 3 was preceded by a painful interview session where the interviewer was forced to skip several issues in order not to stress out the nine-year —old interviewee. With all the terminology in the interview, the student did not even remember what different colours in English meant. Although the interview as a situation probably added to her anxiety, lessons with terms and teaching through terminology that she is not confident about do not perhaps offer the best possible learning environment. Students like Maria who would need more support in their language learning are not likely to find much encouragement in a traditional language lesson. This was also apparent in Maria's learning achievements that were below the average.

In addition to dimensions of vocabulary knowledge and various vocabulary teaching and learning strategies, word characteristics that might pose problems to a SL learner have been addressed in the literature (e.g. Laufer 1997). There was not much evidence in the data of taking advantage of this vein of vocabulary research, either. On the other hand, even in the sixth grade the teaching concentrates on most frequent, simple, concrete words or the most basic meanings so that there is not much room for speculating about difficult words. From the very beginning, however, spelling is paid special attention to, and this was also obvious in the data. This is partly because of the strong position of written language in general, and partly because in Finnish, written and spoken form of the word do not much differ from each other and, thus, the difference between L1 and L2 systems is prominent.

The results show that despite the emphasis in the Finnish national curriculum, based on CEF, on a

functional and communicative view of language, vocabulary is more often seen as a target than a medium. Teaching and learning are very closely tied to the teaching materials, as is the assessment of vocabulary knowledge. Various levels or dimensions of knowing a word are not apparent. Furthermore, metalanguage on vocabulary is often applied and understood differently by the teacher and the students, making the world of words unnecessary complicated. Especially the learning of the poorer students is, if not hindered, at least slowed down and made more difficult with the terminology.

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The form, meaning and purpose of university level assessed reflective writing

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Reflective writing, characterised by self-reference and evaluative commentary, is becoming an increasingly important genre in British universities. Although it is often associated with professional training because there is a particular need for reflective practitioners in work situations where unpredictable and irreversible events take place (Squires 2005), reflective writing tasks are now commonly set in a wide range of UK university departments, both pure and applied.

A major aim of reflective writing is to provide opportunities for Personal Development Planning (PDP), thus supporting national initiatives to encourage young people to 'reflect on their own learning, performance and/or achievement' and 'plan for their personal, educational and career development' (Higher Education Academy, 2005). Apart from assisting students to become more reflective, PDP can also be used to provide alternative evidence of student learning, when employers need to differentiate between apparently equally well qualified graduates.

PDP is a cyclical process of planning ahead for future action, working on tasks, and recording what has been learnt and achieved. It also involves evaluating personal achievements and considering ways to improve performance, and this second element poses the greater challenge to students because it requires them to write honestly about themselves. Many disciplines have traditionally discouraged personal and subjective writing. Indeed, "the fact that reflective writing involves paying attention to the experience of the writer as a practitioner can make it seem incompatible with deeply held views about, for example, legitimate modes of academic enquiry and the nature of 'evidence'" (Warwick University Centre for Academic Practice, 2006). Moreover, the purpose of much academic writing is to persuade the reader of the validity of a given argument, whereas truly reflective writing is often critical of the writer's own thoughts and actions, and does not put a positive gloss on personal mistakes or limitations. Thus reflection in writing is both unfamiliar and potentially risky; it could be argued that the more personal reflection a text contains, the less it conforms to academic norms, and the greater the risk that the writer will lose the reader's esteem.

According to the Higher Education Academy, PDP is most effective when it is integrated within mainstream academic pursuits, linked to the learning objectives and outcomes of academic programmes, and supported and endorsed by lecturers and HE institutions. In other

words, it works best when it is embedded within disciplinary practice, when it is perceived to be an integral part of academic study rather than just a paper exercise, and when it is not the sole responsibility of personal tutors concerned with student welfare rather than academic progression.

Some reflective writing activities, such as personal notes, time-planning schedules, weblogs and reflective journals, are not formally assessed. Reader access to these kinds of texts can be restricted by the writer, making them an ideal repository for honest reflection but unsuitable as a means of evidencing student learning, or monitoring the development of personal development planning skills. Thus, in the hope of obtaining proof that students are reflecting on their learning, departments often make reflective writing both compulsory and subject to some form of assessment. A wide variety of assessed reflective writing tasks have been identified as part of our ESRC-funded project to investigate genres of student writing⁶, including:

- **reflective prologues** to *dramatised dissertations* (Law)
- **reflective commentaries** accompanying *literature reviews* (Health Studies, Anthropology), and *creative rewriting* (English Studies)
- diaries reflecting on practical sessions
 (Archaeology), teamwork (Business, Occupational Therapy), patient care
 (Occupational Therapy) and overseas visits
 (Engineering. Medicine)
- **authors' assessments** of projects (Mechanical Engineering)
- sections labelled learning process / strategy learning review / key learning moments / development of knowledge and understanding (Business)
- annexes critiquing the authors' own approach (Business)
- **feedback** sections (Computer Science)
- **self-reflection tasks** following *responses to a series of questions* (Computer Science)
- final sections of multi-part tasks (Manufacturing, Medicine)

Students may be required to write an entire assignment reflecting on their past personal experiences ("A medical student faced with the three suicide bombings of Cairo in April 2005") or future ambitions ("What sort of doctor do I want to be by the year 2020?"). Alternatively, and apparently more commonly, a reflective section is required at the beginning or end of a longer assessed assignment, perhaps marked as a 'commentary', 'feedback' or 'conclusion'.

Not all departments provide clear criteria for assessing reflective writing, and such criteria are anyway difficult to apply - there is no certain way of knowing whether a

⁶ 'An Investigation of Genres of Assessed Writing in British Higher Education', funded by the Economic and Social Research Council (project number RES-000-23-0800).

student's professed reflection is sincere or invented. Given the unfamiliarity of the reflective task, and the risk entailed in exposing one's own weaknesses, there is an obvious danger that students will go through the motions of appearing to reflect, without actually revealing much about their own thought processes or feelings. Some of the contributors to the BAWE corpus⁷ used reflective sections to comment on the ease or difficulty of a task that had been set, for example, without discussing their reasons for this response:

this was difficult....

the skull sutures were quite easy...'

Archaeology Diary of practical sessions (6033g)

This database did not seem right for what I am doing. I also found it very complicated and confusing to use

Anthropology Library Exercise (3027a)

Others provided only a minimal response which cast their activities in a positive light:

Now that I have finished my assignment, I aim not just to understand the concepts and views of a particular model but to understand its application and usefulness in the real world.

Reflection on Shell's stakeholder approach (0253d)

In conclusion the presentation gave me additional insight in understanding the model.....

Reflection on Hofstede's cultural dimension (0253c)

Nevertheless there are texts in the BAWE corpus which indicate greater preparedness to explore personal development. Some students admitted their confusion about academic expectations, as in the following extract:

I found it difficult to draw the line between what is acceptable to discuss in an academic way, and what is not.

Computer Science: Feedback (6101c)

A few were brave enough to query assumptions underlying their course of study, as in the two following comments:

From someone who has spent several years studying the use of Information Technology to further competitive advantage in business the sharing of ideas, computer code, and resources with customers, peers, and indeed competitors seemed a baffling concept.

Computer Science: essay (6108i)

Reading the Dilbert cartoons in numbers reminded me of my initial doubts about this course and the idea of strategy being an academic discipline –waffling about

⁷ The British Academic Written English corpus, developed as part of 'An Investigation of Genres of Assessed Writing in British Higher Education' http://www.coventry.ac.uk/bawe

great paradigms and models without end and leaving it to someone else to execute.

Business: Key Learning Moments (0206e)

Even in these two examples, however, the writers were careful to indicate that their doubts were initial responses, later to be modified to conform more closely to the accepted departmental view.

Perhaps unsurprisingly, some of the most apparently genuine reflection in the corpus was produced in health related disciplines (Health Care, Counselling, Occupational Therapy, Mental Health Practice etc.). These subjects attract mature students with less immediate prior experience of academic study. The medical students who contributed to our corpus, on the other hand, were amongst the least likely to reveal their innermost thoughts, despite the fact that reflective sections were built into many of their writing tasks. In this excerpt, for example, the student simply reports on approved practice rather than discussing personal development:

Once the patient has been stabilised, further investigations should be performed...

Case notes: Impact on your learning (0047b)

Assigning reflective writing tasks may help to encourage reflection, but this is not to say that students who do not record their reflections do not reflect. Perhaps students can be trained to produce the kind of reflective pieces that tutors purportedly require, but ultimately whether or not to reveal one's hopes, doubts and fears to a tutor is a personal decision that the student alone must make, and that academic tutors have to respect.

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C32680

Emergent literacy across languages: using stories and technology to teach English to three and four year old Spanish children in a foreign language context

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Introduction

English programs around the world are being increasingly integrated to the preschool school level curriculum. In some countries, this integration is accompanied by a growing interest in the use of information and communication technologies (ICT) to support the delivery of education across all school levels. These developments are explored in a PhD research project through the implementation of a work scheme aimed at teaching English to preschool children based on stories delivered via a computer. The research took place in Spain which, according to Andrews (2004), is considered a foreign language context since English is neither the official language of the country, the medium of instruction nor the primary language spoken in the children's home.

Research questions

Based on the aims of the project, the research questions explored in this paper are:

- Can some form of development in children's emergent literacy skills be observed throughout English lessons prepared under a work scheme based on ICT-delivered stories?
- 2. What is the children's attitude towards learning English using ICT-delivered stories?

Methods

A total of ten preschool children aged between 3 and 4 years old participated in the study. The teacher who delivered the course was also a participant and she was interviewed twice, before and after the implementation of the trial lessons prepared under the work scheme. The participant children took a total of 12 lessons 45-min. in length spread out in three weeks.

The lessons were organized in three separate instances: (a) Whole-class storytelling sessions (b) Story-related tasks and (c) Computer tasks. In the classroom children worked individually with me on the story-related computer tasks. One of these tasks was to sequence the story watched by rearranging pictures on the screen. A narrative task happened after the sequencing and although the pictures were available on the screen to help the child remember the story, they were asked to try re-telling the narrative without looking at the pictures. In addition, the children were not pressured to re-tell the story in English. All of the children participated in the re-telling task after having viewed the story two times at least. Three stories were used throughout the course, one per week. Goldilocks and

the Three Bears was the first title and the children were familiar with the story. The other two titles, The Gingerbread Man and Three Billy Goats Gruff were new to the children and are not traditional in the Spanish context. In order to control variations in design and software features of the stories, which can differ significantly between software designers and publishers (Jong & Bus, 2003), the three stories used were taken from the same series (Inside Stories, 2003).

Results

Children's story retellings were audio taped and transcribed for analysis under the Narrative Scoring Scheme (Miller & Chapman, 1984-2006). This scheme evaluates young children's narratives extending the Story Grammars approach (Stein & Glenn, 1979) by categorizing narratives in seven components: Introduction, Character Development, Mental States, Referencing, Conflict resolution, Cohesion, and Conclusion. Four independent reviewers evaluated and scored the story transcriptions and the scores were averaged in order to establish a week-to-week comparison. The analysis of children's narratives based on the scores showed changes in the use of story grammar elements between narratives. The following case illustrates these assertion.

Figure 1: Changes for the component of Introduction in Enrique's narratives

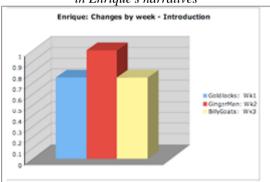


Figure 1 presents an example of the changes in the narratives of one of the participant children, a boy called Enrique. His narrative of The Gingerbread Man improved for the Introduction component in week two (Wk2) of the course, but interestingly the narrative for week three (Wk3) based on the story of The Three Billy Goats Gruff did not show the same level of complexity for the same component.

Figure 2: Changes for the component of Cohesion in Enrique's narratives

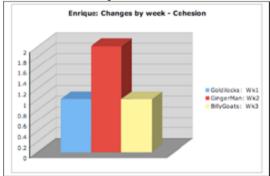


Figure 2 shows the scores for Enrique regarding Cohesion. It illustrates Enrique's use of this component during his narratives of Goldilocks with a score of 1, improving in one point for the second narrative. An increase of one point under the NSS indicates development in the use of a story grammar component.

Conclusions

Regarding emergent literacy development across languages through growth of story grammars.

The project results can be an indication of emergent literacy skills development (Teale & Sulzby, 1986) across languages since the stories were heard and viewed in English but retold in Spanish. Also, they provide evidence of the support offered by stories to young children's development of literacy skills in situations when literacy is not the teaching aim considering that the focus of the lesson was the teaching of English but the analysis of the children's narratives showed developmental story grammar changes between weeks. A possible explanation for the changes in children's narratives could lie in their preferences of the stories used during the course. In the case of Enrique, he selected The Gingerbread Man as his favourite story and this narrative is incidentally the one with the highest average scores as evaluated by the reviewers.

In connection to the benefits of using ICT-stories in the teaching of English and specifically on EFL.

Children learning English from an early age can benefit in other ways than attaining native-speaker fluency as could be observed in the development of emergent literacy skills. Additionally, children who are being exposed to the foreign language linguistic structure by watching stories created for native speakers, can have long-term benefits related to comprehension of discourse of the foreign language (Garvie, 1990). This is particularly useful in foreign language contexts considering that the practice of the language is largely restricted to the classroom. The use of ICT as the delivery medium of the story allowed the children to construct meaning without the need to hear the translated version. This reinforces the notion of exposure to the foreign language discourse as the stories are delivered without adaptations.

Teacher's views on children's increased motivation and interest in learning English via ICT-delivered stories. As observed by the participating teacher, children's motivation towards learning English increased after the introduction of the computer and the stories into the lessons. She observed changes in children's attitude towards the lesson between the first two weeks of the course (pre-implementation of the trial lessons) and the last three (implementation). She considered that the stories provided the children with a lesson structure, allowing them to take advantage of the contents of the lesson. Furthermore, the teacher felt that watching stories from a computer allowed the children to listen to properly-spoken English, supporting the children's development of native-speaker fluency. Finally, she considered that the animations in the story provided the

children with support tools to help them construct meaning from a story that was being heard in English, making translation unnecessary.

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Stodgy writing in the technical workplace

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Background considerations: What is meant by 'stodgy'?

'Stodgy' is the adjective a bid writer used to describe the writing style of her engineer colleagues, adding that their sentences were 'tortured' and 'torturous'. These may not be technical linguistic terms, but they are apt, nevertheless. They convey the idea of writing that is (using her words again) 'indigestible', by which she means difficult to understand and onerous to read. Example 1, below, is fairly typical of the kind of writing to be found in proposal documents produced by her company.

Greater need for applied linguists in the workplace

More applied linguists' expertise needs to be available in technical work environments. My involvement as a sort of English language consultant 'in residence' amongst engineers at work has revealed a growing need for in-house applied linguists in the commercial workplace. Momentum in English for Specific Purposes (ESP) that built up in the 1960s, 70s and 80s, and concomitant knowledge and expertise, seems to have faded. There is, in the non-academic work place generally, a lack of awareness about language and communication, and a clear need for an informed approach to communication tasks, which seems inadequately catered for by our profession.

Unrealistic expectations of L1 language 'training' in the business sector

Managers and Human Resource departments tend to from any training they expect quick results commission. Personal Development Plan (PDP) programmes have been instituted in some companies (and Higher Education Institutions), the implication of PDP being, beginning as it does with 'Personal', that a long-term view should be taken of the educational needs (and aspirations) of employees. This would be sympathetic to our own view, as educators and researchers in applied linguistics, about how best to foster an individual's intellectual development. On the contrary, however, PDPs in the workplace seem to involve achieving short-term goals that will show clear benefit to the business as quickly as possible. This is hardly remarkable, considering the commercial driving force underpinning the business sector and continual changes in demand being made upon it. It would seem that training, rather than longer-term education, tends to interest companies more, so that a more accurate representation of actual practice would be if PDP stood for 'Professional Development Plan', no matter what government policy makers would like us to think.

Company managers acknowledge there is a problem with the standard of written proposals, and documents generally, but seem to believe the solution lies in short training courses, standardized templates (no matter what the genre), text models, and snappy 10-point plans ('Give us ten bullet points to follow', they often say). Writing guides tend to perpetuate this attitude, giving the impression that if certain rules are followed, crystal clear, elegant writing will be the result. A typical example of the kind of advice dispensed by self-help books and short company training courses can be found in the book by Stull and Baird (1993), 'Business Communication', which is a well-liked example of the genre amongst engineers. Stull and Baird extol their readers to think about the seven 'C's to improve their writing, which means they have to make their writing clear, concise, concrete, correct, coherent, complete, and courteous. Brief explanations and examples of each 'C' are provided (a format which goes down well with engineers). To be clear, for example, they are advised to use 'simple' words, avoid the passive, and write shorter, simpler sentences. The problem with such advice is that, when looked at more closely, it comes across as over-simplistic, rather glib, and not helpful in addressing engineers' writing problems.

If applied linguists wish to offer more effective help, though, they need to listen and respond directly to the needs identified by the engineers and their managers. In spite of prevailing ideological thinking in our field, it isn't always the best policy to sit on the fence of descriptivism, when the clamour is for prescription. The linguist has to tread warily the fine line between the two

Proposal writing - a major preoccupation and bother

Usually competitive and written for external agencies and organisations, these usually cause stress and mayhem throughout the time they are being written. Proposal writing is a highly creative activity for the engineers designing the solution, and for the writers who have to present it in large volumes of text and diagrams (Sales 2006:123-135). However, difficulties engineers face when writing them are compounded by their ambivalence towards any hint of needing to be persuasive, doubtless connected to Van Nostrand's (1997:137)and Sales' observation that they consciously avoid using certain personal pronouns in corporate documents.

There are others in the scientific field with the same burden of having to write proposals, to ensure the continuation of their professional practice and livelihoods. Myers, for example, mentions some of the constraints placed upon biologist researchers in their attempts to bid for funding:

There is a paradox in the rhetorical strategy of the proposal, because the proposal format, with its standard questions about background and goals and budget, and the style, with its passives and impersonality, do not allow for most types of rhetorical appeals; one must persuade without seeming to persuade. (Myers 1990: 42)

Since engineers have not been traditionally associated with such rhetoric, little help is available in the literature, either within engineering or applied linguistics, even though there is a fine and established body of writing within the ESP domain, including that for Scientific and Technical Purposes (Woolley 1957, Hicks 1961, Weisman 1962, Pauley 1973, Fear 1977, Houp and Pearsall 1980, Huckin and Olsen 1983, Turk and Kirkman 1989, Kirkman 1992, et al). In the main, engineers are portrayed as writers of factual, information-conveying texts, producing text-types more usually associated with, for example, engineering instructions, specifications, and reports. A few, including Dobrin (1989), Winsor (1996), Van Nostrand (1997) and Sales (2006), put forward another more complex view; however, it seems the traditional view has endured to the present day within the engineering discourse domain, with engineers receiving little or no training in rhetorical expression, and continuing to be unhappy about having to be persuasive in proposals. They feel uncomfortable about it, and generally view themselves as being inept as persuasive writers. Winsor (1996:12) reports similar observations:

As a profession, engineers frown on persuasiveness and find it suspect (ibid:12). ... The primacy and purity of data are an ethical as well as a functional concern. Thus engineers may believe they let the facts speak for themselves and abstain from any obvious persuasion because that is a useful fiction in the world of engineering. (Winsor 1996:99)

Engineers tend to associate persuasive language with salesmen, and overtly 'selling' language is somewhat offensive to them. One design engineer described an instance when he and the marketing member of the team did not see eye to eye about a technical description intended for a proposal:

The customer said he wanted it green, and so I wrote: "It will be green." But Michael [responsible for marketing] wanted it to say: "You asked for green and you shall have it. You will have a beautiful shade of green. We love green at Matrix Industries. We have a whole range of greens for you to choose from", and I thought: "I can't write that!" (Sales 2006:136)

Key features of stodgy writing

Kirkman describes the 'traditional' writing style produced by engineers as being 'heavily unreadable':

.... when I suggest that passive, impersonal, turgid expression is a millstone that the technical content need not carry, I am told that papers written in any other style would be unacceptable: 'It would be thrown straight back'; 'My boss wouldn't have it'; 'You must

make your work sound impressive'. Always there is anxiety that other engineers and scientists would not accept a departure from 'traditional style'. (Kirkman 1992:2)

At the beginning of this paper, the following sentence, Example 1, is mentioned as being typical of the kind of stodgy writing that engineers produce:

Example 1: TTM have been operating a shore integration facility at Clydeport to support upgrade to the TRAFALGAR Class external communications capability for the last two years and have recently established a fully operational replica Wireless Telegraphy (WT) Office with construction of the Communication Shore Integration Facility Enhancement, CSIF(E), that enables live communication links and transmission capability to support capability upgrade.[Company name (TTM) and facility (Clydeport) are pseudonyms]

Most obvious features contributing to this sentence's stodginess are:

- Its length, which would be considered overlong by most standards. The sentence comprises 58 words that form a complex-compound structure, which is unsuccessful in conveying the main message intended by the writers (this was part of a collaboratively written/multi-authored document), for reasons described below.
- Uninformed punctuation usage, which hinders fluent reading. Commas have been inserted unnecessarily before and after the acronym 'CSIF(E)', and have been omitted where they would have been helpful, like, for example, to demarcate the first section of the compound sentence, i.e. after 'last two years'.
- Inconsistent use of acronyms and initials, which contribute significantly to the stodginess of the sentence. Acronyms are a natural corollary of a dynamic and industrious work environment, and are a distinctive feature of engineers' writing (Sales 2006:174). However, their misuse and overuse are key ingredients in stodgy writing, as is the ambiguous and unnecessary tendency of engineers to capitalise individual words, or to use initial capital letters for words that do not require them.
- A tendency to nominalize and to write in 'a nominal style' (Halliday 2004:108), so that, for example, 'upgrade' and 'construction' are used rather than verb equivalents, and a cumbersome sentence is constructed to accommodate two prepositional-phrase qualifiers: 'to the TRAFALGAR Class external communications capability' and 'of the Communication Shore Integration Facility Enhancement, CSIF(E), that enables live communication links and transmission capability to support capability upgrade'.
- A tendency to place the most important information in final position, in that engineers are generally predisposed to putting the most important information, the nub of the matter, at the end of sections or long sentences. In the case of Example 1, the main message, and in this case the key selling

- point of the proposal, is positioned ('buried') at the very end. By the time most readers reach this part of the sentence, its import will have escaped them. A closer examination would probably show the need to reposition (and rework) the final defining relative clause 'that enables live communication links and transmission capability to support capability upgrade', and the embedded non-finite purpose clause 'to support capability upgrade', especially as these are the key points.
- Complex noun phrases Halliday's notion of complex noun phrases in scientific writing impeding comprehension for ESL and EL1 readers (ibid:159) is amply illustrated by Example 1, which contains five complex noun phrases, the longest of which comprises twenty words: a shore integration facility at Clydeport; upgrade to the TRAFALGAR Class external communications capability; the last two years; a fully operational replica Wireless Telegraphy (WT) Office); construction of the Communication Shore Integration Facility CSIF(E), that Enhancement. enables live communication links and transmission capability to support capability upgrade.

In fact, complex noun phrases abound in technical texts, and so it is natural that these should feature in proposals, to which engineers contribute technical descriptions. They are exhorted by their managers to write simply and clearly, but this is no easy task, as results from my own investigations have shown (Sales 2006:86:89). These lend support to Halliday's observation about the 'often professed ideal of "plain, simple English" '. Engineers tend to write sentences with clausal structures that may be categorised as 'simple', exemplified by Example 2,

Example 2: The combat system designer will incorporate a low risk electro-optical tracking system compatible with displays, weapons and a range of sensors via any ship's highway.

but which contain noun phrases comprising several nouns strung together. So, a sentence like Example 2 would be deemed simple because, according to Quirk and Greenbaum (1973:166), they do not have embedded clauses as constituents. However, such sentences may contain structurally complicated noun phrases at S and O positions, or, as Halliday more aptly puts it: 'a pile up of nouns' (2004:159).

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Import genres in academia: the academic portfolio as a discourse technology

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This paper describes research that I am conducting into an emergent genre in Finnish academic communities, the academic portfolio. This genre is beginning to replace CVs as a form of documenting academic qualifications, for example when applying for university posts. While CVs are mainly information-oriented, portfolios also include reflective and promotional components. Recurring (and prescribed) content elements include the applicant's teaching philosophy, self-evaluation and visions for self-development.

The genre originates in North America (see e.g. Seldin 1993; Knapper & Wright 2001) and thus illustrates one aspect of the globalisation of discourse practices (Coupland 2003; Fairclough 2006). My larger project focuses, in particular, on the practices through which the genre is localized in Finland: how and by whom portfolios are mediated to local sites, how portfolios are regulated and policed, how genre awareness emerges locally. The data include portfolio texts, interviews with writers and trainers, observations of teaching sessions and various types of normative material (e.g. published portfolio guidelines and manuals). The principal research sites are the universities of Helsinki and Tampere.

In this paper, I will focus on whether and how the academic portfolio functions as a "discourse technology" (Fairclough 1996). Of particular interest is whether one salient element of portfolios, reflective writing, constitutes such a technology in academic communities.

Discourse technologisation and the portfolio

The assumption underlying the notion of discourse technologisation is that discourse practices are increasingly becoming objects of systematic research, design and standardisation in institutional settings. Fairclough (1996: 73) lists a number of key characteristics of discourse technologies:

- the emergence of expert "discourse technologists"
- a shift in the "policing" of discourse practices
- the design and projection of context-free discourse techniques
- strategically motivated simulation in discourse
- pressure towards standardisation of discourse practices

Academic portfolios as they are used in Finland illustrate most of these tendencies. In particular, there has been a drive towards standardisation, for example

in the form of portfolio guidelines, training courses and the emergence of local portfolio experts. One characteristic in Fairclough's description does not, however, seem to hold: there is little policing of the portfolio genre.

Fairclough argues that technologisation involves a shift in the policing of discourse practices from a local institutional level to a trans-institutional level. On the basis of my data, it appears that there is little if any central policing of the portfolio genre in Finnish universities; the evaluation of portfolios takes place in local panels of academics. There is no self-evident locus of control as far as genre conventions are concerned; criteria of acceptability and success are local and temporary, and therefore unpredictable from the writer's point of view. This creates ambivalence in the community as to the status of the genre: it is not only difficult to judge local standards of acceptability, but also whether the genre itself is to be taken seriously.

Reflective writing

My data suggests that the ambivalence as to criteria of acceptability and genre status centres in particular on the appropriateness of reflective writing in portfolios, and more broadly, in academic genre systems. Reflective writing is demanded, in particular, in accounts of teaching philosophy and visions for personal development.

In normative materials, both in Finland and internationally, reflective writing is established as a discourse technology in Fairclough's sense: it has been designed and established as a systematic technique by a set of experts, and there are attempts to standardise and police this form of writing. Normative materials emphasise, for example, that reflective writing is not just free association or brainstorming. In addition, they provide exercises and guidance on how to assess reflective writing. (See e.g. Schönwetter et al. 2002; Levander 2002; Moon 2004).

The precarious position of reflective writing within Finnish academic genre systems is evident both in portfolio guidelines and in data from writer interviews. First, there is little explicit guidance available on reflective writing. At the University of Helsinki, the only advice to writers of teaching philosophy sections is provided in the form of a set of questions which are supposed to trigger reflection:

What is my view of learning, teaching, competence, teaching methods and work methods suitable for myself, teaching in my own discipline, the significance of teaching, my role in the scientific community, the role of the student, knowledge, etc.? What are the objectives of my teaching? How is my teaching philosophy reflected in practice? How do I treat students? (University of Helsinki website on portfolio writing)

Second, the guidelines appear to be unclear about the status of reflection as an element in portfolios. On the Helsinki website, there are several references to the importance of reflective practice for professional development. However, it is also stated that

Academic portfolios resemble scientific reports, with the authors documenting their core professional skills and examining their academic work as a whole.

Here, the "scientific report" is established as a genre model for portfolio writers, suggesting a very minor role for reflection in portfolios.

Two excerpts from my interview data show how this ambivalence affects writers:

you attend the [portfolio] course and they tell you to reflect and you think okay fine, then you look at the guidelines and they list stuff like how many dissertations you've supervised and how many articles you've written, the list sounds just like a CV (writer interview)

during pedagogical training we were told that we should write about our own thoughts and feelings and how we experience our work but in this case [in a job application] I think what the evaluation panel probably expected or what they would have thought mature would have been something more academic and impersonal (writer interview)

A third source of ambivalence is that reflective writing appears to demand the projection of identities which are in tension with traditional academic ideals (e.g. impersonality and an emphasis on expertise). Reflective writing is usually presented as a tool for learning, with writers being asked to adopt the identity of a learner, in contrast to the identity of an expert. Writers are encouraged to emphasise personal growth, development and future potential, instead of focusing on past achievements.

A final issue is that some of the normative materials construe reflective writing as an essentially private practice, creative, personal and even therapeutic in function; writing which is not necessarily assessed (see e.g. Walker 1985). Reflection as it has been appropriated into use in academic portfolios is public and assessed, an institutional technique of assessment used in a situation of fierce competition over jobs.

Conclusions

I have argued that the academic portfolio is an unstable and contested genre in Finnish academic communities: there is widespread ambivalence both about its overall value and acceptable forms. The portfolio model is being institutionally enforced even though the technologisation process appears incomplete and the technology "immature", particularly due to the lack of central policing. It might even be argued that the portfolio is a "failed" technology given that what is

being projected is a hybrid whose elements appear incompatible (promotion and reflection).

It remains to be seen whether the genre will be further technologised in the sense of being the object of increased standardisation and policing (e.g. by introducing academic managers or portfolio experts into evaluation panels) and whether the status of reflective writing remains as contested as it is today.

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Language-ideology based pupils' identity construction: A case study in a Dutch multicultural primary classroom

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Abstract

Current ethnographic research shows that Dutch educational policy is caught between two positions. First, it constructs pupils from immigrant minority groups as educationally disadvantaged and, as a consequence, fosters mainstream (language) education as the means for their social integration and emancipation (Bezemer, 2003). Second, it leaves Dutch primary school teachers with the challenge of dealing with the cultural and linguistic diversity brought about by their pupils (Bezemer & Kroon, 2008; Spotti, 2006). Against this background, this contribution, stemming from a larger comparative ethnographic enquiry in the Netherlands and Flanders, focuses on the analysis of the discourse of a Dutch native primary school teacher in a multicultural classroom in the Netherlands. By means of socio-culturally informed discourse analysis (Gee, 2005), it is shown that the identities of immigrant minority pupils are constructed, in the class teacher's discourse, on the basis of language attributions that find their pivotal point in ideologies of language disadvantage provoked by the lack of Dutch language skills on the part of these pupils' parents. Our analysis, however, indicates that at the level of the discourse that populates the classroom, the ideologies that lay beneath the language attributions through which these pupils' identities are constructed are eroding. Such erosion might also hold consequences for the way in which immigrant minority pupils' identities are constructed in the discourse of Dutch governmental institutions.

Introduction

The separation of people from their native culture through physical dislocation as refugees, immigrant guest workers or expatriates as well as the dissolution of colonisation processes have been formative experiences of the last century for many Western European nation-states.

In 2005, the year in which this case study was carried out, it was estimated that in the Netherlands out of a total population of slightly more than 16 million inhabitants, 3.1 million had at least one parent born outside the country (CBS, 2006). The last century's immigration phenomena are not only tangible through numbers but also through the current Dutch political and public discourse. On the one hand, immigrant

minority group members addressed as westerse allochtonen (western non-indigenous or allochtonous people), are thought to share a common European history and a 'European' identity (cf. Davies, 1997). On the other hand, immigrant minority group members addressed as niet-westerse allochtonen (non-western allochtonous people) - mostly Turks, Moroccans and more recently Somali – are presented as people in need of societal and linguistic integration. From these two examples, it appears that Dutch public discourse is armored with a 'jargon of minorities' (Extra & Gorter, 2001:5) through which immigrant minority group members, their descendants, their cultural backgrounds and their languages hit the headlines. In so doing, the Dutch public discourse constructs immigrants and their descendants as other than the majority group, and their languages as other than the majority language (Kroon, 2003:40). These attributions of otherness are also present in (primary) education and go beyond mere jargon alone. The attribution of certain language skills (or lack thereof) to one group of pupils rather than another is endemic to all levels of educational discourse. These language attributions often remain unarticulated but are still informative. They, in fact, form the way in which pupils' identities are constructed as learners. Particularly in contexts of immigration and globalisation, language attributions to individual pupils may appear to be difficult (cf. Gogolin & Kroon, 2000; Kroon & Sturm, 1996; Bezemer, 2007) and, at times, they may not be totally exhaustive of the language repertoires that pupils bring along and/or may employ in the socio-cultural spaces they inhabit (cf. Spotti, 2006).

Against this background this paper focuses on how a Dutch native primary school teacher constructs the identities of her immigrant minority pupils in a Dutch multicultural primary school classroom. precisely, it sheds light on the language ideologies that lay beneath the language attributions proposed by the class teacher. The reconstruction of these language attributions indicates that, at the level of classroom discourse, ideologies of language disadvantage and low educational achievement of immigrant minority pupils are eroding. A conclusion is then advanced in terms of the possible implications that this outcome may hold for the practice of teachers in culturally and linguistically heterogeneous (primary classrooms and in terms of the possible connections between this teacher's construction of pupils' identities and the larger Dutch macro-discourse of representation of its cultural others (cf. Shi Xu, 1995, 1996).

Conceptual framework

Central to identity construction is the concept of categorization. Categorization is a process that involves "identifying oneself (or someone else) as someone who fits a certain description or belongs to a certain category" (Brubaker & Cooper, 2000:17). Once made operational, categorization leads people to construct their own and/or someone else's identity as a member or as an outsider of a given community on the basis of the fulfillment of certain characteristics. These characteristics consist of thinking, acting, valuing and

interacting, in the 'right' places, at the 'right' times through the use of the 'right' objects, including language, in ways that are considered appropriate for In community members. other words. characteristics that someone ought to fulfill are the conditio sine qua non for someone to subscribe him- or herself and/or ascribe someone else as a community member (cf. Carbaugh, 1996; Holland & Quinn, 1987; Wieder & Pratt, 1990). However, people's judgment of what is appropriate in order to be a community member does not happen just because. Rather, this judgment relies on the basis of what Gee (1999:43) calls 'discourse models'. Discourse models are explanatory theories, either idiosyncratic or culturally transmitted, that people hold to make sense of the world around them. They are formed on the basis of those associative networks that people have been part of throughout their lives. Discourse models are channeled through discourse where discourse is understood as the whole of possible forms of expression, e.g., oral, written, pictorial and multimodal, produced by the action of an institution and/or of an individual within a particular socio-cultural space (cf. Blommaert, 2005).

The array of discourse models that people may hold is wide. Discourse models, in fact, may range from the rituals that someone should follow for having a cup of coffee in a certain socio-cultural space to why certain gestures are applicable and other are not when engaged in a PhD viva with an opponent. In relation to language, the discourse models people may hold about the language or languages someone speaks supply a means through which identities are constructed and negotiated, along with membership of certain communities. Ideologies of language and identity guide the ways in which individuals use linguistic resources to index and/or conceal their identities as well as to attribute the use of linguistic practices to others. The discourse models that guide the analysis presented in this paper hold a metonymic function, i.e., they are the pars pro toto of larger language ideologies that lay beneath the language attributions through which identies are constructed.

The study

The present study has adopted a sociolinguisticethnographic perspective (Erickson 1986; Rampton et al, 2004). The ethnographic perspective is best described as wanting to investigate "[...] what people are, how they behave, how they interact together. It aims to uncover their beliefs, values, perspectives, motivations, and how all these things develop or change over time or from situation to situation. It tries to do all this from within the group, and from within the perspectives of the group's members" (Woods, 1986:4). Within this ethnographic perspective, the study has aimed at understanding the construction of immigrant minority pupils' identities in the discourses of a Dutch-medium primary school teacher, in terms of these pupils' cultural, ethnic, religious and linguistic belongings. Further, it has sought to shed light on how the identities constructed through the teachers' discourses about her pupils' language attributions can be understood in relation to the meso-discourses held at

school level and to the Dutch macro-discourses of cultural, ethnic and linguistic otherness. The study was designed so to produce a 'cultural ecology' of the classroom (Rampton *et al.* 2004:2) and at the same time, to adopt a critical perspective, i.e., a perspective that questioned the normative nature of the macro-discourses in which the investigated classroom was inserted. From the outset of the study, care was taken to comply to research ethics. Pseudonyms were used for the school, the class teacher and the pupils so as to preserve confidentiality, informed consent was sought from the parents of all participating pupils, and all interview transcripts were authorised by the interviewees.

The fieldwork started on February 15th, 2005, when the first author visited St. Joseph Catholic Primary for the first time and explained the purpose of the study to the school Head and to Miss Sanne, the class teacher of Form 8a. After gaining their approval, one month was spent in the 5th Form as a (non-participant) observer. In order to establish a working relationship with the teacher and allow the pupils to get used to the presence of a stranger in the classroom, this month of fieldwork was gradually built up from two days a week up to a complete school week. In that month, audio recordings of classroom events were made for a total of 46 hours and 35 minutes. Following the writing up of the field notes in the form of a synopsis, supplemented by the transcription of all the audio-recorded classroom events, interviews were carried out with Miss Sanne. The main interview with the class teacher was based on model of the long open-ended interview (McCracken, 1988:9). This was done to explore the class teacher's biography and her primary schooling experience and professional career. In this way a body of knowledge was gathered that would permit us to identify the associative networks that had populated the class teacher's life. Altogether, four interviews were carried out with Miss Sanne. These were all audio recorded and, soon afterwards, they were transcribed and made available to the teacher for confirmation of content and accuracy of transcription. Once authorised, the transcripts were analysed, using Gee's (2005) socio-culturally informed discourse analysis. The aim was to identify, in the teacher's discourse, those discourse models that contributed to the construction of her pupils' identities. This analytic work was done by means of a continuous sifting process. This involved reading the interview transcripts several times, and then identifying and coding those sections where the teacher's discourse models and language ideologies were most clearly manifested.

In 2005, Form 8a of St. Joseph Catholic Primary counted for eighteen pupils in total, eight boys and ten girls. The age of the pupils ranged from eleven to thirteen years due to some pupils repeating the school year. Thirteen pupils had attended St. Joseph Catholic Primary since Form 1. Following the school register, all pupils of Form 8a were assigned an educational weight of 1.90 which means that because of their socio-ethnic backgrounds they are as 'heavy' to be taught as almost two 1.0 pupils, i.e., a pupil from

autochtonous educated parents. The 1.90 measurement applied to all pupils beside Walid, son of highly educated parents both born in Morocco, who was registered as having an educational weight of 1.0.

Identities constructed on the basis of language attributions

In the reconstruction of Miss Sanne's discourse models we first present the cases of two pupils whose language attributions marked the opposite ends of the category 'immigrant minority pupil with a disadvantage'. Miss Sanne started off with telling about Mohammed a pupil of her previous Form 8, who came from Somalia to the Netherlands when he was eight years old. In her discourse model Mohammed, to whom the rest of the pupils of Form 8a are compared, appeared as the example par excellence of the immigrant minority pupil with a language disadvantage due to parental language practices. He had come to the Netherlands when he already mastered Somali and, following Miss Sanne's discourse, it is because of Somali that he encountered syntactical and vocabulary limitations in Dutch. Further, he was not sufficiently exposed to 'good Dutch' because his father speaks no Dutch and his mother's spoken Dutch suffered of syntactical problems too. From Mohammed's case, Miss Sanne moved to the opposite end of the category and dealt with Lejla, a Bosnian pupil of her current Form 8a who came with her parents to the Netherlands at the age of three. Within the discourse model of immigrant minority pupils with a disadvantage, Leila appeared to be the opposite of Mohammed. Lejla's Dutch was good and, following Miss Sanne's discourse model, it was good because her parents just 'simply' spoke Dutch at home and also because she has learnt Dutch at a young age. However, Lejla's own language attributions differed from those formulated by Miss Sanne. Lejla, in fact, addressed Bosnian as her language and she reported to use it extensively with her immediate siblings and parents.

After having discussed Mohammed and Leila we come to Walid's and Micheline's case. Following the discourse model so far reconstructed that sees abundant contact with immigrant minority languages and parental lack of Dutch proficiency as deterrent for the pupils' Dutch, Walid would be a 1.90 pupil. 'Technically speaking', in fact, Walid has Moroccan parents and he is a hundred percent Moroccan himself. Yet Miss Sanne's own experience was different, since 'in practice', Walid was a smart boy with highly educated parents who, in the teacher's view, spoke good Dutch. This reality came to erode the discourse model that Miss Sanne had so far drawn about parental language practices, the language attribution of immigrant minority pupils and the construction of immigrant minority pupils' identities. In fact, Walid's educational weight should be a 1.0. For the teacher, though, it still remained difficult to grasp how an educational weight of 1.0 could be possible for a pupil who like all the other pupils in Form 8a is a descendant of foreign parents. Micheline, finally, is an Antillean pupil born in Curação to Antillean parents and grown

up in the Netherlands. Following the teacher's discourse, Micheline was among the brightest pupils of Form 8a and she did not have a language disadvantage. This was so for two reasons. First, in agreement with the model of pupils' language disadvantage because of parental lack of Dutch, her parents spoke Dutch to her and this language behaviour should suffice to explain her good results. Second, following Miss Sanne's own 'ethnic hierarchy' (cf. Verkuyten, Hagendoorn & Masson, 1996), Antillean pupils possess Dutch 'a bit better' than the rest of the immigrant minority pupils of Form 8a. This was so because Dutch is not really a second language to them but 'also their mother tongue with Papiamentu'. The two other Antillean pupils of Form 8a, though, also had Dutch at home but they instead were categorised as 'weak' pupils. Their connotation of 'weak' pupils then brings Miss Sanne's discourse model to erode. As a way out, the teacher attributes Micheline's good results not anymore to Dutch as almost a first language for Antilleans and to parental language use but to Micheline's own 'bright' nature.

Discussion

Within the indexical order of identities reconstructed from Miss Sanne's discourse models, a connection was made between parental linguistic practices (or lack thereof) and the perceived intrinsic deficit of particular pupils' ethnic identities. On the one hand, these language attributions were reminiscent of the last three decades of work carried out in sociolinguistics and education (Keddy, 1971; McDermott & Gospodinoff, 1979) where the sociolinguistic background of pupils matched their ascribed ethnic identities and, together with them, became fertile ground for preconceived barriers to these pupils' school success. On the other hand, the language attributions proposed by the class teacher, their underlying discourse model and the language ideology this calls back to are eroding. Such erosion might also hold consequences for the way in which immigrant minority pupils' identities are constructed in the discourse of Dutch governmental institutions. If (primary) educational discourse is contingent on giving accurate attributions of pupils' language repertoires and resources, which it often is, mismatching in language attributions can cause the construction of a priori disadvantaged identities in these pupils' schooling trajectories (cf. Kroon & Vallen, 2006).

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Exploring Causal Relationships between Individual Differences and Web-Based Language Learning: A Structural Equation Modelling Approach

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Previous research on CALL indicated that effective activities pertaining to CALL enhanced learners' motivation (e.g. Chang 2005; Fotos 2004). However, the effects of individual difference (ID) variables on the development of L2 proficiency through CALL have not been substantially investigated (Chapelle 2004). Further, the causal relationships between ID variables and improvement in L2 skills through CALL have been explored even less substantially. Within the framework of structural equation modelling, this study examined the causal relationships between four ID factors motivation. learning strategies, instructional preferences, and attitudes towards Web-based learning—and the improvement in learners' L2 reading proficiency through Web-based learning.

The study involved 135 Japanese college students who were enrolled in 'Reading & Listening (R&L)', one of the English classes offered at Rikkyo University, Tokyo. All of them were freshmen with a mean age of 18.4 (SD = .062). There were 91 female students and 44 male students; they were all placed in the advanced-level classes in our curriculum. Their bio data revealed that none of them had experienced any form of Webbased learning of English.

We developed online materials to improve learners' L2 reading proficiency through the use of 'phrase reading'—a 'chunking' or 'word-combining' strategy. While reading an English passage, Japanese learners of English are likely to mentally translate the English sentence into Japanese by converting the original English word order with the verb following the subject (e.g. SVO) into the Japanese word order with the verb in sentence-final position (e.g. SOV). This backward reading habit is considered to be one of the sources of the relatively slow reading speed of Japanese EFL learners. The phrase reading activities enable them to eliminate this poor reading habit in a way that forces them to process the English sentence phrase by phrase, one after another, without disrupting the original word order, for instantaneous comprehension of the meaning of each phrase. We decided to make such exercises available on the Web so that our students can access them at any time and place.

Based on previous research on ID, questionnaires were developed to elicit the factors influencing motivation, learning strategies, and instructional preferences. Additionally, a questionnaire related to Web-based phrase reading exercises and designed to elicit factors behind the attitudes towards Web-based learning, was also constructed. This questionnaire also provided information, in the form of self-evaluations, on the extent to which learners were able to develop their L2 reading skills through our Web-based materials.

Data were collected during the spring semester of 2004 and 2005 from the researcher's R&L classes. The participants were instructed to read the materials outside the class during the course of the semester. Towards the end of the semester, they filled in questionnaires on the four ID factors and the perceived improvement in L2 reading proficiency brought about by using the materials.

The exploratory and confirmatory factor analyses yielded four latent variables for motivation, three for learning strategies, two for instructional preferences, and one for attitudes towards Web-based learning. We hypothesized that the ten latent ID variables are directly and/or indirectly related to the criterion measure 'Improvement in L2 Reading'. This hypothesized model was tested using AMOS 7.0.

A moderately good fit to the data (RMSEA = .069) was revealed in the final structural model, and twelve paths—two of which were data-driven paths—were found to be statistically significant. Five remarkable findings emerged from this model. First, of the ten latent ID variables, only the motivation variable 'Course Orientation' was found to be capable of significantly predicting learners' improvement in L2 reading using our Web materials ($\beta = .542$, p < .001). Second, this particular motivation variable was also found to predict learners' attitudes towards Web-based learning ($\beta = .524$, p < .001). Third, attitudes towards Web-based learning did not predict the improvement in L2 reading on the Web. Fourth, this attitudinal variable was directly associated with the instructional preferences variable 'Challenge' (β = .205, p < .01)—a data-driven path recommended by AMOS. Fifth, there were no indirect paths leading to the improvement in L2 reading.

The significant contribution of the Course Orientation motivation indicates the possibility that learners who are satisfied with the content of this course (R&L) and recognize the importance of learning the course materials, irrespective of the formats, are able to improve their reading skills using our Web-based materials. Further, learners who tend to believe that what they learn in this course would help them in other English courses and would take this course even if it were not required, would improve their reading proficiency (and overall proficiency) through our Web materials. In fact, at the beginning of the semester, we emphasized that the goal of the course is to improve reading and listening skills that would enable learners to obtain good learning outcomes in the other courses in our English curriculum. This finding is contradictory to Warden and Lin's (2000) argument that 'required motivation'—a motivation to study because the class was required—is necessary for Asian students to yield

positive learning outcomes. Moreover, it is plausible that learners with this motivational disposition exhibit positive attitudes towards the Web-based learning system that encourages them to learn English at their own pace. However, this attitudinal variable is not directly associated with the criterion measure, suggesting that mere encouragement through a new form of learning may not be enough to lead learners to higher learning outcomes.

The data-driven path in the current structural model also indicates that the learners with more positive attitudes towards Web-based learning tend to engage in more challenging activities both in and outside the class. This suggests that cultivating a positive attitude towards Web-based learning in one way or another—for instance, by developing more effective Web materials—would strengthen learners' preferences for more challenging activities, possibly resulting in a substantial improvement of their L2 skills. The development of more effective Web materials such as those outlined herein should thus be greatly encouraged, and the replication of the current design should be implemented using a different population in future research.

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A Comparison of IELTS Preparation Courses: Taiwan and the UK

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Summary

Previous studies concerned with research into IELTS preparation courses have mainly concentrated on the impact of IELTS preparation, for example, Brown (1998), Celestine and Su Ming (1999), Rao, McPherson, Chand and Khan (2003), and Read and Hayes (2003). Despite these studies, empirical comparisons of IELTS preparation courses between two countries are still lacking. This research compares and contrasts six IELTS preparation classes from six different language institutes, four classes in Taiwan (TW1, TW2, TW3, and TW4) and two classes from the UK (UK1 and UK2). In general, the duration of the preparation courses in Taiwan (45-48 hours in total) was much longer than in the UK (12-30 hours). Apart from the UK1 Class, which only focused on preparing students for the speaking and writing sections, the other five classes covered the four areas of the IELTS test. In addition, all four observed classes in Taiwan and UK1 Class were structured as independent short term courses which focused on the IELTS test only, while UK2 Class was part of a full-time general English course.

Though this research aims to describe rather than to evaluate, the data from both observation and interviews still reveals some interesting points. Classroom observation was conducted in an unstructured nonparticipant form with audio recording and note-taking. The observation focused particularly on investigating four classroom features: classroom organisation, activity, teaching methodology, and material. The findings of observation show that first language (L1) instruction only occurred in TW1 Class, while the others all applied English as a medium of instruction all the time. The similarity in all six classes was that a 'whole class' form dominated and was predominantly led by the teacher especially in TW1, TW2, TW4 and UK2 classes. The teachers of TW3 and UK1 classes tended to organise more 'pair work' than the others, whilst 'individual work' was more frequent in TW1, TW2, and UK2 classes. 'Group work' was only arranged by the teachers in TW3, TW4, and UK2 classes and occupied a relatively short period. In addition, the relationship between the teacher and student(s) was most interactive in TW3 Class and less interactive in TW1 Class. The relationship between the teacher in TW1 Class and student(s) was more interactive only when practising the speaking tasks. The interaction between student and student in TW3 Class was the most frequent among the six classes, while pair work hardly happened in TW1 class.

The other similarity among all classes was their narrow focus and the exclusion of certain typical language learning activities, explicitly justified by the relevance to exam needs. Apart from UK1 class which only offered speaking and writing practice, students in their classes experienced practice of various tasks in the four areas of the IELTS test. Since class time was limited, the actual use rather than practice of English rarely appeared in all classes. However, in several circumstances some practice could be seen, not only as target language (English) practice, but also as using the target language in a real situation. For example, Excerpt 1 shows that the teacher might treat it as a speaking task exercise, but the responses from the student conveyed authentic information. Another example of using the target language to transmit authentic information was in UK2 Class. Excerpt 2 shows that at first, a conversation practice was carried out, and then students were very interested in the topic, so the target language practice became a case of conveying real information. Also, in UK1 Class, the teacher asked each student to introduce themselves at the beginning of the course which was obviously a real use of English.

Excerpt 1

(Observation TW1 Class, Lesson 4)

7:40 T: Students, look at page 51, not many people have started with this rule, 'Mind maps'. This is a very useful guideline to use in your speaking test. Always try to cover the five wh-questions: who, when, where, what, and why in your oral exam. When you are speaking, try to keep these 'mind maps' in your mind and make sure you answer all five wh-questions. Jack, what do you do in your leisure time?

S (Jack): Um, I often go swimming.

T: Swimming? So, where did you go swimming?

S (Jack): I usually go to a school's swimming pool near my house.

T: Really? And when do you usually go swimming.

S (Jack): I usually go swimming in the afternoon 4 or 5 o'clock.

Excerpt 2

(Observation UK2 Class, Lesson 6)

2:48 T: Katrina, do you like British food?

S (**Katrina**): No, I don't like British food, because it's very oily, unhealthy, for example in restaurants here everything comes with crisps, and they only eat very few vegetable.

T: Chips, yeah.

S (**Katrina**): And they serve so many fast foods here. People don't really cook. In Germany, when we come back from work, we always prepare and cook something for dinner. But, here people just buy some microwave foods from supermarket.

T: Yes, I suppose that's because people are tired after a day's work, so they don't have energy to spend on cooking.

S (another student voluntarily participates in the conversation): Yeah, you know lasagne right?

It's my favourite dish, and every time my mum cooks it, it takes her 3 hours to cook it.

Since these observed classes were not only language classes, but also specifically exam preparation classes, varieties of exam-taking skills to deal with each area of the test were emphasised by the teachers in each class, for instance, speed/scan/skim reading, identifying key words, summarising techniques, planning an essay, a 5-Wh question answering strategy, planning a speech by making notes, and predictions for the answers. In contrast, language features, such as the difference between British and American English in both vocabulary and pronunciation, the use of formal and informal phrases and vocabulary, were only highlighted in these classes occasionally.

With regard to the use of material, the textbook, worksheets, and whiteboard were the major materials in all observed classes. The teachers of the TW1 and TW3 classes tended to use the textbook more often in the class, whilst, the teachers of the TW2, TW4, UK1, and UK2 classes used more worksheets. In fact, no regular textbook was used in the UK1 Class, so the teachers only used copied handouts in this class. Teachers from TW2, TW4, and UK2 classes tended to choose the main textbook as homework material and supplied other practice worksheets from a variety of published materials to use in their classes.

Semi-structured interviews were conducted with 16 students (Subject (S) 1 to S5 from TW1, S6 to S10 from TW2, S11 to S14 from TW3, S15 from UK1, and S16 from UK2), and 7 teachers from each class (Teachers E and F both taught UK1 Class). The findings of interviews show that the teachers considered the students in the preparation course were all highly motivated, and they expected more examtaking techniques to be taught and more supplementary practice materials to be provided by the teacher. Although both TW1 and TW2 classes originally aimed to cover the four areas of the test, the students in TW1 Class described how the teacher spent much more time on writing activities than other sections, and the students in TW2 Class pointed out that the teacher focused more on reading and writing than the other two sections. Writing practice was undoubtedly considered as the most useful activity by the students in these preparation classes; in contrast, the listening activity was considered as being the least useful practice. Moreover, the preparation class in Taiwan tends to offer practice tests to students, while students in the UK classes did not receive any practice tests. Some subjects believed that it was very important and useful to experience practice tests at least once before taking the real IELTS test. Additionally, S7, S11, S15, S16 and the teachers in TW4 and UK1 classes considered the duration of the preparation course was too short. The students claimed that they could not absorb so much information within such a short duration; the teachers suggested that since the duration of the class time was so short, students should do more selfstudying beyond the class. On the other hand, S4, S11, S12, S13, and S16 admitted the benefit and usefulness

of taking the course. In general, the teachers distinguished such an exam preparation course from a general English course, so they considered that in order to benefit more, students should have a certain level in English to attend this course.

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Identifying Plagiarism in Student Academic Writing

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Background

The increasing concern about student plagiarism in UK higher education urgently calls for developing effective solutions to the problem. Whilst institutional antiplagiarism guidance tends to represent plagiarism as a clear and straightforward phenomenon (Angélil-Carter, 2000; Pecorari, 2001; Yakovchuk, 2005), plagiarism is complex, and this complexity is two-fold: a theoretical complexity, or the complexity of the concept (Pennycook, 1994, 1996; Scollon, 1995; Currie, 1998; Bloch, 2001; Howard, 2001; Pecorari, Macdonald and Carroll, 2006) and a practical complexity, or the complexity of identifying plagiarism (Pennycook, 1994; Buranen, 1999; Angélil-Carter, 2000; Park, 2003; Pecorari, 2003). This paper reports on a 2006 study of plagiaristic practices of undergraduate non-native speaker students, including the plagiarism identification framework designed for identifying plagiarism in their academic writing.

Sample and Methodology

The participants of this study were ten third-year Chinese students following their BA in English Language, Translation and Cultural Studies at the University of Warwick, and the samples of their writing were taken from the assignments prepared for the core 'Sociolinguistics' course. The average length of a sample used for analysis was 1236 words. The ten samples were divided into 548 analysis units (mainly sentences), and the analysis units that were based on sources were coded using the plagiarism identification framework developed specifically for this study. This framework is based on three criteria: 1) presence or absence of a quotation signal, 2) presence or absence of a reference to a source, and 3) a degree of text transformation (Exact Copying (EC), Wording Close to Original (WCO), and Wording Distant from Original (WDO)).

Main Findings, Discussion and Practical Implications

The analysis based on this framework identified a considerable amount of plagiarism in student writing samples (26.5% of all 548 analysis units, or 48.3% of the 298 analysis units identified as based on sources). Interestingly, according to the TurnitinUK plagiarism detection software, the same samples were virtually clear of plagiarism.

67% of the analysis units coded as 'plagiarism' did not contain a reference to a source (they were either EC, WCO or WDO). On the one hand, this might signal an intentional motive to disguise somebody else's work as one's own; on the other hand, however, this might also

be a result of not being aware of proper referencing conventions.

29% of 'plagiarism units' constituted WCO with a source reference and without a quotation signal. Since source acknowledgement was present for such units, they perhaps reflect student confusion over what constitutes acceptable and unacceptable paraphrase. This type of plagiarism might also have been caused by language difficulties. Such an explanation would be consistent with the literature on the subject and needs to be addressed pedagogically.

43% of 'plagiarism units' constituted WDO without a quotation signal and a source reference. This represents plagiarism of ideas, and it turned out to comprise a substantial part of all the plagiarism identified in the analysed samples. This makes plagiarism of ideas an important point of focus, particularly since this plagiarism type is not identifiable through electronic plagiarism detection software tools that are being increasingly used by higher education institutions worldwide. A major UK survey of academic cheating, the 2006 survey of UK universities commissioned by *The Times Higher Education Supplement* also pointed to the prominent status of plagiarism of ideas among other kinds of academic misconduct (Shepherd, 2006).

Additionally, inaccuracies of source documentation (e.g. incomplete references to sources, wrong use of quotation marks, inaccuracies in documenting secondary citations, etc.) constituted 20.5% of all the analysis units identified as based on sources. Although this does not constitute plagiarism, it still represents poor academic practice which requires pedagogical attention.

The results suggest that, along with the punitive side, there is a clear need for an appropriate pedagogical response to student plagiarism. It is suggested, therefore, that universities should put emphasis on providing comprehensive input on correct source documentation, and on promoting the development of relevant study skills and good academic practice in general.

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Lexical diversity in speaking and writing performances

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Lexical diversity has been considered an illuminative predictor of learners' general language proficiency (e.g. Zareva *et al.* 2005) and an essential indicator of the quality of their writing (e.g. Laufer and Nation 1995) and speaking (e.g. Jarvis 2002; Malvern and Richards 2002; O'Loughlin 1995) task performances. Such a positive relationship is also claimed explicitly in the rating scales of major international language tests (e.g. International English Language Testing System, Michigan English Language Assessment Battery, Test of English as a Foreign Language), as well as in the development and implementation of automated writing evaluation systems (e.g. e-rater).

For example, IELTS writing and speaking responses are rated according to their "lexical resource" which refers to "the range of vocabulary the candidate has used" (IELTS Handbook 2007). According to the MELAB rating scales (MELAB Technical Manual 2003), test takers need to demonstrate "a wide range of appropriately used vocabulary" in order to achieve a high score for written compositions, and similarly an "excellent speaker" should demonstrate that his use of "idiomatic, general, and specific vocabulary range is extensive"; and for a "marginal speaker", his "vocabulary is limited".

In TOEFL iBT, one of the criteria to score the responses to the independent and the integrated writing tasks is "appropriate and precise use of grammar and vocabulary" (TOEFL iBT Scores 2005). Lexical diversity has also been employed as one of the most important parameters in automated writing (e.g. Chodorow and Burstein 2004) and speaking (e.g. Zechner *et al.* 2007) evaluation systems. It seems that lexical diversity as an important quality indicator of test performance has been widely assumed in both research and practice in the field of language teaching and testing. However, the precise nature of such relationships remains largely asserted and sometimes elusive.

Given this widespread assumption and the high stakes of international language tests and the influences of these tests on language education worldwide, empirical posterior validation studies are much needed to establish whether and to what extent such an explicit link between lexical diversity of written and spoken discourses and test scores assigned to the writing and speaking task performances, as claimed by the rating scales of the international language tests and by the parameters of automated evaluation systems, exist in the actual test performance data.

Furthermore, several other questions remain unanswered such as: to what extent test takers' lexical diversity in writing and speaking task performances are correlated, and to what extent lexical diversity of a written or spoken discourse is attributable to test takers' overall language proficiency, and what task characteristics may affect lexical diversity of performance and how.

This paper reports an empirical posterior validation study that analysed a sample of an international language test programme's archived data to investigate to what extent such relationships exist, in particular: the relationships between lexical diversity and the holistic quality of test takers' writing and speaking task performances as well as their general language proficiency, the differences in lexical diversity between writing and speaking task performances, and to what extent the prompts of the writing tasks affected lexical diversity of written discourses.

Using D as a measure of lexical diversity (Malvern and Richards 1997, 2002; McKee et al. 2000), it was found that D had statistically significant and positive correlation with the overall quality ratings of both writing and speaking performances as well as test takers' general language proficiency. Nevertheless, the significant relationships did not bear out across the sub-groups of the sample in terms of gender, first language background, purpose of taking the test and topics of the writing prompts. The different topics and topic types of the writing prompts also had significant effects on lexical diversity – especially when test takers were highly familiar with the topics - even after controlling their writing abilities and overall language proficiency. The lexical diversity of test takers' writing and speaking performances were approximately at the same level; further, D was found to be more able to predict test takers' speaking than their writing performances.

The implications of these findings are discussed with specific reference to the use of lexical diversity measures to inform language test validation and the development of lexical diversity parameters in automated evaluation systems.

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Computer-based vs. Paper-based Testing: Does the test administration mode matter?

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Abstract

Evaluating the comparability of paper-based and computer-based tests is crucial before introducing computer aided assessment into any context. There have been several comparability studies that have examined the impact of transferring a test from paper to screen. Such studies have either focused on the comparability of the product of the tests i.e. scores, or on the processes used to achieve that product. However, Chapelle & Douglas (2006:46) argue that "To date not a single study of L2 testing has examined directly whether or not past experience with computers affects test performance on a computer-based L2 test". Sawaki (2001) recommended that this type of empirical work should utilize different methodologies such as eye movement, verbal protocols, post hoc interviews and questionnaires in order to obtain useful results. Chalhoub-Deville and Deville (1999) pointed out that there is a scarcity of comparability research on localised language tests needed to detect any potential impact of the test delivery mode when converting conventional paper tests to computerised tests. Thus, our ongoing study explores the comparability of paper and computer-based testing in an L2 reading context and the impact of test takers' characteristics, i.e., computer familiarity, computer attitude, testing mode preference and test taking strategies on students' performance on computer-based tests, and comparison with paper-based tests. 167 Saudi medical students participated in this study. The study used several quantitative and qualitative instruments to gather data. This paper reports on the results of the quantitative instruments of the study i.e. the tests and the questionnaires and the relevant interviews. We found no significant difference between each testing mode and none of the factors examined had an influence on students' performance when doing the computer-based tests. The study is still in the process of analyzing the qualitative data and hopes to report on that soon.

Introduction and literature review

Technology has been implemented in the field of language assessment by using computers to deliver different types of assessment. However, little empirical work has been done in order to examine the impact of technology on the main basic quality concepts in the assessment, which include the concepts of validity and reliability. Moreover, little research has been conducted to investigate the interaction between the assessment modes and test taker variables. There have been some studies that have focused on the comparability of paper-based testing and computer-based testing in

some areas such as psychology, mathematics and ergonomics (Sawaki, 2001). However, only a few studies have explored this issue in the field of language assessment, such as those by Boo (1997); Taylor et al. (1999); Kirsch et al. (1998); Taylor et al. (1998); Eignor et al. (1998); Russell (1999); Russell and Haney (1997) and Choi et al.. (2003). Some studies have revealed that there is a significant difference between the two testing modes (Pomplun, 2002; Choi, et al., 2003) while others have concluded the opposite (Boo, 1997; Whitworth, 2001; Bugbee, 1996). However, previous research has mainly focused on the product, i.e. test scores achieved or the processes that resulted in these scores, but not on both aspects. Paek (2005) mentioned the importance of computer familiarity and test taking strategies on measuring the equivalence of the two testing modes.

The advantages of computers are well-known and apparent. They offer test developers the opportunity to improve their productivity and lead to innovation in their fields. The advantages of computers in the context of this research, i.e. language testing, are myriad. The standardization of test administration conditions is one of the benefits offered by computer-based testing (CBT). No matter what the tests' population size is, CBT helps test developers to set the same test conditions for all participants. It also improves all aspects of test security by storing questions and responses in encrypted databases and enables testers to create randomized questions and answers from vast question pools. Moreover, offering different test formats and the immediate presentation of different types of feedback, either to students or testers, are also some of the great advantages of CBT.

Collecting different performance data such as latency information is a unique feature of CBT (Olsen et al., 1989). On the examinees' side, they are able to receive greater measurement efficiency and the possibility to take the test at any time. On the other hand, there are some disadvantages that users have to be aware of before opting for computer-based testing. Students need some degree of computer literacy in order to avoid the mode effect on computer-based testing (Alderson, 2000). Johnson & Green (2004:2) asserted that "If computer technology is to be able to fulfil the potential claimed by its supporters, it needs to be seen to at least match the levels of validity and reliability of the paper and pencil assessments that it hopes to replace". Thus, many scholars suggest conducting systematic studies to check equivalency and comparability of paper-based tests and computer-based tests (Parshall et al., 2002).

One of the main contributing factors that should be examined when dealing with comparability research is the existing computer familiarity of test takers and its interaction with performance on CBT. Little research has been carried out in the area of the relationship between the computer familiarity of examinees and their performance on computer-based testing. Furthermore, the concept of computer familiarity has been defined in different ways (Taylor et al., 1999). In

an extensive review of the relevant literature, Taylor et al. (ibid) found that the concept of computer familiarity has encompassed computer use (Pelgrum et al., 1993), computer experience (Geissler & Horridge, 1993; Hicks, 1989; Jegede & Okebukola, 1992; Levin & Gordon, 1989; Loyd & Gressard, 1984a; Marcoulides, 1988; Miller & Varma, 1994; Powers & O'Neill, 1993), awareness of technology and information technology (Christmas, 1992; Dalton, 1994; Durndell & Lightbody, 1993; Jegede & Okebukola, 1992) and having access to computers at home, school or elsewhere (Durndell & Lightbody, 1993; Geissler & Horridge, 1993; Levin & Gordon, 1989; Miller & Varma, 1994; Okinaka, 1992; Stephens & Rowland, 1993). Some researchers have found that computer familiarity can affect the examinees' performance on CBT (Buderson et al., 1989; Hofer and Green, 1985 and Mazzeo & Harvey, 1988).

It has been found that computer experience was a major factor in explaining the difference between students' performance on computer-based arithmetic reasoning tests (Lee, 1986). However, Boo (1997) found that there was no significant relationship between computer familiarity and the students' performance on three computerised tests. Moreover, Taylor et al. (1999) found no evidence of an undesirable effect of computer familiarity on students' performance on computer-based tests. Due to a high exposure to technology and the availability of computers, measuring computer familiarity has been a difficult issue in all of the previous research (Boo, 1997).

Furthermore, an essential additional test taker characteristic that might affect his/her performance with regard to CBT is computer attitude. There is no doubt that the examinee is highly influenced by his/her attitude or preference towards the test or the test mode. Some people are not familiar with technology and cannot keep pace with its rapid development and thus they prefer not to tackle or deal with any form of technology nor apply it in their academic or social lives. Computer attitude and preferences are not only formed by previous experience and use of computers but also by the educational and professional curricula and generally by choices and attitudes to subjects in schools (Bear, Richard and Lancaster, 1987, cited in Levin and Gordon, (1989)).

Different studies have explored examinees' computer attitudes and preferences for computer-based testing and found a variety of views. Some participants negatively evaluated their experience with the computers in general and CBT in particular (Ward et al., 1989). However, that was explained by the investigators as the respondents were new to this type of test administration mode and such a negative attitude might disappear with more exposure to CBT. On the other hand, many other studies found that the examinees positively preferred CBT for several reasons such as time efficiency, focusing attention, enjoyment and confidentiality (Bresolin, 1984, cited in Boo, (1997)). Other participants were very positive about

computer-based testing because it seemed less difficult, more useful and engaged their attention more than paper-based testing (Harrel et al., 1987). Further studies concluded that students positively preferred computerised tests to their counterparts on paper and some studies related that to computer experience which means the greater the computer experience of the examinee, the more positive the attitude and the preference, whereas others changed their attitudes after exposure to CBT (Vincino and Moreno, 1988; Levin & Gordon, 1989; Bruke et al., 1987; Powers and O'Neill, 1992 and Boo, 1997).

Therefore, this study aims to measure the comparability of computer-based and paper-based tests, and the relationship with the two core concepts of assessment i.e. validity and reliability. This study also examines how test taker characteristics such as computer familiarity, computer attitude, testing mode preference, and test taking strategies interact with the testing mode, and to what extent this interaction affects the test scores and, as a result, the overall validity of computer-based tests. The methodology used in this study differs from previous research as the framework employed here is both quantitative and qualitative in nature. This framework triangulates the data sources to increase the validity and reliability of the results and the conclusions of this study. The conclusions and recommendations will be beneficial to medical colleges in Saudi Arabia as they are the main audience in the target context.

Research questions

This study addresses and attempts to answer the following questions:

- 1. Are the reliability and validity of the tests influenced by the test administration mode?
- 2. To what extent does prior computer familiarity affect participants' performance on CBT?
- 3. To what extent does prior computer attitude affect participants' performance on CBT?
- 4. Will participants' prior testing mode preference influence their performance on both testing modes? If so.
- 5. Will participants perform better on their preferred test mode?
- 6. Will participants' posterior testing mode preference be influenced by exposure to CBT?
- 7. Will CBT experience result in a positive attitude towards features of CBT?

Methodology

This study used a triangulation perspective in data collection from students doing both paper- and computer-based reading tests in order to vary the sources of data required to answer the research questions. Thus, both quantitative and qualitative instruments were employed to reveal more valid and reliable results and consequently reach more solid conclusions. The following diagram illustrates the framework used in this study:

Subjects

The participants in this study were first year medical students. 167 Saudi male and female students took part in this study. 57% of them were male and 43% were female. Participants had the same educational history with respect to reading instruction and test taking. Yet, female students had not received formal computer instruction in their academic curricula. This project was carried out at King Faisal University, College of Medicine, Dammam, Saudi Arabia.

Study instruments

The study employed the following instruments:

- Reading section of the TOEFL test (with permission from ETS).
- Two computer familiarity tasks designed by the researcher to measure, in a direct way, the participants' computer familiarity.
- Two questionnaires measuring computer familiarity, computer attitude, testing mode preference and attitudes to CBT features designed by the researcher with the help of questionnaires available in the literature.
- Three institutional reading achievement tests made available to the researcher by the target institution.
- Semi-structured interviews conducted after administering the second questionnaire and the verbal reports.
- Think aloud protocols to gain insights into mental processes used by subjects while taking the tests.

Procedure

Initially the reading section of the TOEFL test was administered to measure the students' reading proficiency and to measure the concurrent validity of the study tests. Then the computer familiarity tasks were given to the students to measure, in a more direct way, their computer familiarity and to validate that with their responses to the first questionnaire. That was followed by the first questionnaire which was designed to collect demographic data, measure the computer familiarity of participants, and their preference with regard to testing modes. Next, the study utilized three institutional achievement tests as a tool to compare the scores on both testing modes. These tests were converted into computer versions using the Question Mark system *Perception*.

There were two testing sessions where all paper- and computer-based tests were administered in a counterbalanced design in order to minimize the practice and order effect with a one-month gap to minimize the memory effect as well. The second questionnaire was administered after that to collect data about preferences after exposure to computer-based testing. That was followed by semi-structured interviews with a random sample from the participants.

Results and discussion

The data have been collected recently and the coding and analyses have not yet been completed. However, initial analyses have been conducted for the purpose of this paper. First, the test scores analysis showed that there is a difference in students' performance on paper-and computer-based tests. Table 1 shows a summary of all tests' mean scores and standard deviations.

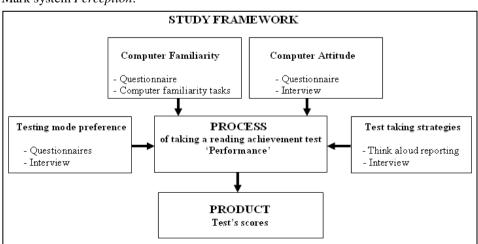
Table 1: Descriptive statistics of the paper and computer-based tests

computer basea tests					
Tests	N	Mean %	Std. Dev'n		
Paper-based test 1	167	77.45	12.879		
Paper-based test 2	167	66.47	17.856		
Paper-based test 3	167	67.90	18.362		
Computer-based test 1	167	74.65	15.389		
Computer-based test 2	167	61.89	19.022		
Computer-based test 3	167	64.07	15.259		

Based on Table 1, we can see that the mean of every paper test is close to its computer counterpart. However, the t-test analysis proved that these differences are significant. Table 2 summarises the t-test results:

Table 2: T-tests of means of all paper and computer

	iesis	
		Sig.
Pair 1	paper-based test 1	.016
rall 1	- computer-based test 1	.010
Pair 2	paper-based test 2	.001
ran 2	- computer-based test 2	.001
Pair 3	paper-based test 3	.003
r an 3	- computer-based test 3	.003



We would argue that these significant differences are attributed to the low number of test items on each test and the sample size. Moreover, it is quite obvious the descriptive from statistics Table of the tests that the difference between the means of each test is not vast. To examine the effect of the testing mode on reliability, we examined the internal consistency (Cronbach's alpha) of each test on each mode. The following Table summarizes the results of the internal reliability coefficients:

Table 3: Reliability coefficients of all paper and

computer tests			
Tests	Testing		
	Mode		
	Paper	Computer	
Test 1	0.57	0.58	
Test 2	0.65	0.64	
Test 3	0.70	0.65	

We also ran correlation analyses to check the test/retest reliability. Tables 4 & 5 show the correlations of all paper and computer tests with each other and with the reading section of the TOEFL as a concurrent validity indicator:

Tables 4 & 5: Correlations of all paper and computer tests with each other

		paper-based test 2	paper-based test 3
paper-based	Pearson Correlation	.243**	.187*
test 1	Sig. (2- tailed)	.002	.016
paper-based	Pearson Correlation		.391**
test 2	Sig. (2- tailed)		.000

		computer- based test 2	computer- based test 3
computer-	Pearson Correlation	.464**	.423**
based test 1	Sig. (2- tailed)	.000	.000
computer-	Pearson Correlation		.466**
based test 2	Sig. (2-tailed)		.000

Table 6: Correlations of all paper and computer tests with TOEFL

		Reading section of TOEFL
paper-based test 1	Pearson Correlation	.318**
paper-based test 1	Sig. (2-tailed)	.000
nanar basad tast 2	Pearson Correlation	.354**
paper-based test 2	Sig. (2-tailed)	.000
manau basad tast 2	Pearson Correlation	.370**
paper-based test 3	Sig. (2-tailed)	.000
acommutan based test 1	Pearson Correlation	.355**
computer-based test 1	Sig. (2-tailed)	.000
aammutan baaad taat 2	Pearson Correlation	.386**
computer-based test 2	Sig. (2-tailed)	.000
computer based test 2	Pearson Correlation	.433**
computer-based test 3	Sig. (2-tailed)	.000

The results indicate that all paper tests significantly

correlated with each other and with the reading section of TOEFL. Furthermore, there is a significant correlation between all the computer-based tests with the TOEFL reading section. The overall correlations favoured the computer-based tests. A further validity check was to correlate the computer-based tests scores with the constructs and mediators under investigation i.e. computer familiarity, computer attitude, and testing mode preference. Table 7 demonstrates the correlation results:

Table 7: Correlations of all computer-based tests with all study variables

an snay variables					
		Comput er familiari ty scale	Comput er familiari ty tasks	Comput er liking Scale	Testin g mode pref.
compute r-based	Pearson Correlati on	.133	129	.105	.050
test 1	Sig. (2- tailed)	.088	.098	.177	.522
compute r-based	Pearson Correlati on	.048	076	.056	.010
test 2	Sig. (2- tailed)	.541	.330	.475	.901
compute r-based	Pearson Correlati on	.058	135	.140	.077
test 3	Sig. (2- tailed)	.460	.081	.071	.322

From Table 7, we find that there is no significant correlation between the computer-based tests, which is our interest here, and the other moderators such as computer attitude and testing modes preference, and other constructs such as computer familiarity with its two measures i.e. the scale and the computer tasks. This indicates that these variables have no effect on the scores of computer-based tests and consequently there is no impact on the overall validity of these tests. To sum up, there was no significant effect of the testing mode on the overall reliability and validity of the tests.

This consolidated conclusion answers our first research question. It is essential to mention that our findings for this research question agree with other relevant studies in the field. Our findings about the effect of testing mode on test reliability and validity match some of the results in related research. For example, the findings of Olsen et al. (1989) confirmed that paper-based and computer-based as well as the computer adaptive tests of the mathematical items of California Assessment Program (CAP) yielded equivalent scores. Boo (1997) also found that testing modes did not influence the reliability of tests, and other constructs such as computer familiarity did not appear to be part of the construct measured by the computerized tests. This means that neither the testing mode nor the assumed construct had an impact on the overall reliability or construct validity of the tests. Furthermore, the findings of Choi et al., (2003) supported the comparability of PBTs and CBTs of the Test of English Proficiency prepared by Seoul National University (TEPS).

In order to establish PBT and CBT comparability, it is

essential to ensure that scores produced by both forms are a true measure of the same construct. Thus, in our study, we examined the relationship between the construct of computer familiarity and the subjects' performance on CBT. Since we used two measures for the construct of computer familiarity, both measures will be used in our analysis to get more reliable results upon which we can draw valid conclusions. To answer this question, we examined the relationship between computer familiarity and participants' performance on computer-based tests. First, we ran correlations between the two computer familiarity indicators and the computer-based tests. Table 8 shows the correlation results:

Table 8: Correlation of all computer-based tests with computer familiarity measures

		Computer Familiarity Scale	Computer tasks
Mean of computer-	Pearson Correlation	.096	138
based tests	Sig. (2-tailed)	.215	.075

This indicates that there was no significant correlation between the subjects' performance on computer-based tests and their computer familiarity scale. Furthermore, the correlation between the second measure of computer familiarity i.e. computer tasks and the computer-based tasks, was not significant. These results indicate that there is no significant relationship between computer familiarity and performance on computer-based tests. We also performed repeated measure ANOVA to explore the relationship between computer familiarity and participants' performance on computer-based tests. The results are presented in Table 9:

Table 9: ANOVA results of interaction of tests*modes*computer familiarity measures

resis modes complifer function by medsures				
Source		df	F	Sig.
tests * modes * computer familiarity scale	Sphericity Assumed	2	1.691	.186
tests * modes * computer familiarity tasks	Sphericity Assumed	2	2.710	.068

Computer familiarity construct with its two measures i.e. scale and tasks do not have a significant effect on computer-based tests. All these results answer our second research question. Our findings here are in line with other research findings in the literature (Powers & O'Neill, 1992; Vispoel, et al., 1994; Boo, 1997; Taylor, et al., 1999; Fulcher, 1999; Higgins, et al., 2005).

When examining the comparability of PBT and CBT, the participants' computer attitude should be taken into account. Hence, the third research question deals with this issue. To answer this question, we used correlation and repeated measure ANOVA. Table 10 summarises the results:

Table 10: Correlation of computer attitude measure and computer-based tests

		Mean of Computer-based Tests
Computer Attitude	Pearson Correlation	.121
Scale	Sig. (2-tailed)	.118
	N	167

There is no significant correlation between computer attitude and the participants' performance on computer-based tests. We used repeated measure ANOVA to examine the effect of computer attitude on performance on computer-based tests. Results are presented in Table 11:

Table 11: Repeated measure ANOVA

Source		df	F	Sig.
tests * modes * computer attitude	Sphericity Assumed	2	.122	.885

These results indicate that computer attitude has no significant interaction with the tests and the modes. To sum up, we found no significant correlation between computer attitude and subjects' performance. Moreover, the repeated measure ANOVA confirmed that participants' computer attitude has no significant effect on their performance. All these results answer our third research question. These results go with other research findings such as those of Powers & O'Neill (1992).

Examining the relationship between testing mode preference and performance when conducting a PBT and CBT comparability study is essential. To answer our four question, the subjects' responses to a simple question in Questionnaire One, i.e. *Would you prefer taking test on: paper – no difference - computer*, were correlated with their mean scores on computer-based tests. Our coding for respondents' answers was 1= on paper, 2= no difference, 3= on computer. Table 12 shows the results of these correlations

Table 12: Correlations of Pre-CBT testing mode preference and computer-based tests

		Mean of Computer- based Tests
Pre-CBT testing mode	Pearson Correlation	.054
preference	Sig. (2-tailed)	.490
	N	167

Apparently, there is no significant correlation between participants' pre-CBT testing mode preference and their performance on either testing mode. We also performed multiple comparisons between preference groups using one-way ANOVA to examine the relationship between the prior testing mode preference

and performance on computer-based tests. Table 13 shows the one-way ANOVA results:

Tables 13: Multiple comparisons of Pre-CBT preference groups

(I) Would you prefer taking tests	(J) Would you prefer taking tests	Sig.
0	No difference	.175
On paper	On computer	.925
No difference	On paper	.175
No difference	On computer	.498
0	On paper	.925
On computer	No difference	.498

Dependent Variable: Mean of computer-based tests

These results also support the absence of the interaction between pre-CBT testing mode preference and performance on computer-based tests. Previous results confirmed that there is no significant relationship between the participants' testing mode preference and their performance on computer-based tests.

To seek an answer to the fifth question concerning the influence of exposure to CBT on testing mode preference, we used descriptive statistics. The following table shows the descriptive statistics for each group:

Table 14: Descriptive statistics of groups according to their Pre-CBT preference

Woul	ld you prefer	N	Mean	Standard deviation
	Paper based test 1	68	76.08	13.689
	Paper based test 2	68	64.08	20.164
	Paper based test 3	68	64.12	18.322
On maman	Computer based test	68	72.65	16.172
On paper	Computer based test 2	68	59.98	19.866
	Computer based test 3	68	62.84	14.854
	Valid N (listwise)	68		
	Paper based test 1	47	81.42	10.397
	Paper based test 2	47	67.63	15.539
	Paper based test 3	47	70.78	18.575
N - 4:66	Computer based test	47	78.16	14.560
No difference	Computer based test 2	47	66.87	15.792
	Computer based test	47	64.11	14.682
	Valid N (listwise)	47		
	Paper based test 1	52	75.64	13.260
	Paper based test 2	52	68.54	16.511
	Paper based test 3	52	70.26	17.686
On computer	Computer based test	52	74.10	14.799
	Computer based test 2	52	59.89	20.062
	Computer based test 3	52	65.64	16.404
	Valid N (listwise)	52		

From the descriptive statistics in Table 14, it is quite evident that the participants who preferred paper tests and the second group which did not mind taking the test on either mode, did better on the paper tests. The

last group, which selected CBT as its preferred testing mode, did better on paper tests, however. The overall results answer quite negatively the fifth research question. These findings showed that all participants did better on paper-based tests, though their performance was not particularly high.

The overall results confirm that there is neither significant effect nor interaction between prior testing mode preference and performance on either of the testing modes. This is an additional indication that testing mode preference does not affect test validity. Nevertheless, subjects tend to perform better on paperbased tests than on computer-based tests regardless of their testing mode preference. We would argue that this is due to the novelty of CBT in the target context and might be attributed to some of the reasons brought up by subjects in the subsequent interviews, such as the eye fatigue, page scrolling, and text display. This should be taken into consideration in the target context if CBT is to be implemented. A possible solution for this is to adjust the pass/fail cut-off points. The overall findings here agree with Fulcher (1999) who examined the relationship between students' attitudes about computer-based testing and performance on web-based testing and found no significant impact of participants' attitude on their CBT scores. It is the same conclusion that Russell (1999) arrived at when investigating the examinees' preference for writing on paper or using a keyboard when they were doing science, mathematics and language arts tests.

In terms of our sixth research question we aimed to examine the testing mode preference before and after participants were exposed to CBT to investigate the impact of exposure to CBT on subjects' testing mode preference. Therefore, we divided this part of our research into two phases: Pre-CBT testing mode preference and Post-CBT testing mode preference. To measure each of these, we asked the participants about their testing mode preference before and after exposure to CBT in the First and Second Questionnaires. Table 15 shows the frequencies of participants' responses BEFORE exposure to CBT.

Table 15: Frequency table of responses to the Pre-CBT testing mode preference

Valid:	Frequency	Percent	Valid	Cum.
			Percent	Percent
On paper	68	20.4	40.7	40.7
No difference	47	14.1	28.1	68.9
On computer	52	15.6	31.1	100.0
Total	167	50.0	100.0	

From Table 15, we can see that 40.1% preferred to take the test on paper, 28.1% did not mind taking the test in either mode while 31.8% opted for computers as their preferred mode of testing. Participants justified their preferences differently. For instance, for those who opted for computers as their preferred testing mode, their motives ranged from CBT being an innovation in the assessment system, the accuracy of CBT, and time saving, to the enjoyment of CBT and its ease of

recording and changing answers.

On the other hand, participants who chose paper as their preferred testing mode attributed that to the following factors: lack of keyboarding skills, ease and comfort, intolerable CBT technical faults, and familiarity with this type of assessment. They also preferred paper-based testing because reading the questions and recording the answers is easier, as is highlighting the text, and it does not cause any eye fatigue. For neutral participants, they shared the same view of each testing mode advocate and thus they have no reservations about either mode. After the subjects had finished both paper- and computer-based tests, they were asked once more about which test they would prefer to take again. Table 16 presents the distribution of participants in the three categories:

Table 16: Frequency table of responses to Post-CBT testing mode preference

testing induct projectives						
Valid:	Frequency	Percent	Valid Percent	Cum. Percent		
On paper	58	34.7	34.7	34.7		
No difference	22	13.2	13.2	47.9		
On computer	87	52.1	52.1	100.0		
Total	167	100.0	100.0			

These tables show that only 34.7% still preferred paper-based tests while only 13.2% prefer taking their tests in either mode. The greater percentage (52.1%) was those who chose CBT as their preferred mode of preferences. testing. When rationalizing their participants gave almost the same reasons they had already given to the previous preference question in Ouestionnaire One. The results indicate that there is a significant distribution of participants in categories and this is particularly apparent in the second and third categories. We can conclude from the previous results that the number of subjects who preferred PBT and those who preferred taking tests in either mode have changed to favour those who chose CBT as their preferred testing mode. However, identifying the attributes of this significant alteration of preference was crucial. Therefore, we conducted retrospective interviews with a random sample of those who had changed their testing mode preference from PBT to CBT, from CBT to PBT, and those who did not mind either testing mode. It was essential to know if the participants had changed their preference solely because of the experience itself.

Responses were collected from 23 participants. 53% of the participants changed their testing mode preference from either PBT or neutral to CBT. Some subjects justified their prior paper test preference by having no prior CBT experience. Some also attributed this to past unpleasant CBT experiences such as some boring computer courses. Furthermore, being accustomed to paper tests, the novelty of CBT was another reason for some subjects. Eye fatigue was a major concern for one participant from his prior experience with the daily use of computers. However, after these participants had been involved in the CBT experience, they entirely shifted from PBT as their preferred testing mode to

CBT. They found CBT more comfortable, more enjoyable, and time saving. Ease of changing answers, reading the passage and questions, as well as being able to navigate through the text and the questions were very attractive features of CBT that influenced the subjects' testing mode preference. Participants also liked the display of the passages and the questions which was an innovation for them in test taking experience as well as a shift from the classical testing mode i.e. PBT to the new technological one, CBT.

On the other hand, it is also important to examine the other group who altered their preference from either CBT or neutral to PBT. This group of participants attributed this change to unfamiliarity with computers and technology. Although they felt that CBT is more comfortable, enjoyable and saves time, certain issues led these participants to change their preference to subsequently favour PBT. Their evaluation of CBT was negative since it was their first unpleasant and uncomfortable CBT experience. Physical psychological problems caused by CBT, such as eye fatigue and boredom, were other motives behind their preference alteration. Some technological issues such as text display, scrolling, and a test indicator of time remaining affected the students' preference for CBT. Subjects stressed these concerns and asserted that they would change their preference to CBT if their concerns with CBT are to be taken into account and overcome in future CBT experiences.

We also investigated the impression or feelings that all participants had developed about CBT features after being involved in our study. Table 17 summarizes the results:

Table 17: Frequencies of responses of posterior preference to features of PBT and CBT

prejerence to jeatures of FB1 and CB1					
N= 167					
	Options				
Questions	On paper	No Differ ence	On comp uter		
In which test was reading passages easier to navigate through?	63	19	85		
In which test was reading passages easier to read?	88	23	56		
In which test was the text in the items easier to read?	52	44	71		
Which test was less fatiguing?	47	28	92		
In which test was it easier to record answers?	39	32	96		
In which test was it easier to change answers?	9	7	151		
Which test were you more likely to guess the answer in?	29	88	50		
Which test was more comfortable to take?	63	20	84		
In which test would you be more likely to receive the same score if you took it a second time?	52	70	45		
Which test was more enjoyable to take?	20	20	127		
Which test more accurately measured your reading comprehension skills?	85	44	38		

Table 17 indicates that more than half of the participants developed a positive attitude towards the majority of CBT features. For instance, it was easier for 51% of the subjects to navigate through the passages on computer than on paper and 43% found it easier to read the test items on the computer than on paper. Moreover, about 55% felt it less fatiguing to take a test on computer than on paper. 57% and 90% respectively found recording and changing the answers easier on computer. Not only that but also 50% of the subjects felt more comfortable when taking the test on computer than on paper and 76% enjoyed it. Yet, about 52% found it easier to read the text on paper than on screen. One interesting finding is the percentages of the last question about the accuracy of the two modes for measuring the reading comprehension skill of the participants. About 50% of the subjects think that PBT measures their comprehension skills accurately while only 21% think that CBT is better in this respect. I would argue that these percentages do not contradict their post-CBT preferences where 34% chose PBT again while 52% went for CBT as their preferred testing mode.

Conclusion

This study aimed to measure the comparability of both paper- and computer-based L2 reading achievement tests. It also investigated the relationship between several factors i.e. computer familiarity, computer attitude, and testing mode preference and performance on computer-based tests. Thus far, we have found that the testing mode has no significant effect on the overall validity and reliability of the tests. We also reached a point where we can assert that the construct of computer familiarity has no influence on students' performance on computer-based tests. In addition, the other moderators such as computer attitude and testing mode preference do not have any critical impact on the overall students' performance on computer-based tests. Since our study still has a qualitative part in its early stages of coding and analysis, no clear picture can yet be offered about the final findings and results of this study. Therefore, final solid conclusions cannot yet be drawn out of the available results due to the incomplete data analysis. This study is still ongoing and it is hoped that by Spring 2009, the complete results and findings will be ready for publication.

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The actuality adverbs in fact, actually, really and indeedestablishing similarities and differences

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Introduction

The aim of my paper is to discuss a group of adverbs: in fact, actually, really and indeed. However my purpose is not to add a new study about the adverbs but to show how we can get new insights about the meanings and functions of the adverbs and their relationship to each other by using corpora of different kinds. The four adverbs are closely related because of their meaning of actuality and a common etymology (cf Traugott and Dasher 2002; Schwenter and Traugott 2000). They can occur in the same context as in the example below with little difference in meaning:

It is in fact a good idea
It is indeed a good idea
It is really a good idea
It is actually a good idea.

Because of these similarities the adverbs of actuality can be regarded as a semantic or lexical field 'a kind of meaning continuum which the signs of different languages tend to carve up in different ways' (Dyvik 1998: 72). When we look more closely at the adverbs we find both similarities and differences between them. However the adverbs fit badly in a traditional lexical or semantic field well-known from Saussurean linguistics where the lexical items constituting the field are connected by their oppositions to each other or by some other semantic properties such as synonymy or hyponymy. In order to distinguish between the adverbs it is not sufficient to look at their lexical meaning or even function but we need to consider both grammatical facts such as position and collocation as well as prosody and discourse factors. Moreover the lexical field is not discrete but the actuality adverbs overlap in function with adverbs of certainty such as surely, certainly, definitely. This raises the question what the difference is between saying 'it is in fact a good idea' and 'it is certainly a good idea'.

The adverbs of actuality have been the object of a number of studies either focusing on them as adverbs or treating them as pragmatic markers because of their close links with pragmatic function.⁸ As a result we know a lot about the contexts in which the adverbs occur and their different functions depending on factors such a position in the utterance and collocation.

⁸ Traugott and Dasher (2002) discuss the development of *indeed, in fact,* and *actually* to discourse markers, i.e. they distinguish between adverbial and discourse markers. As discourse markers they have primarily a rhetorical function and are oriented to the speaker. In Aijmer and Simon-Vandenbergen (2004) we used the term 'expectation marker' to describe *in fact* and its close synonyms.

The differences between the adverbs are often subtle as has appeared from the observations by Oh (2000) and by Watts (1998). Oh (2000) for instance found that actually and in fact overlapped in some syntactic positions but not in others and Watts (1998) drew attention to the fact that even adverbs with the same meaning can have different implicatures. The situation is even more complex if we compare more than two adverbs. For example there are contexts where we could use both actually and in fact with little difference in meaning. However in other contexts actually seems to be closer in meaning to really. In fact can also be grouped with indeed in some meanings and really and indeed have got several functions in common. The explanation for this complexity is diachronic and reflects how the adverbs develop semantic or pragmatic polysemies as a result of grammaticalization (Traugott and Dasher 2002). From a diachronic perspective 'each construction has its own history at the micro-level and the coexistence of the forms with each other (and other ADVs like really, in truth, etc) ensures that some differences persist, on an assumption that no two Ls [lexemes] mean exactly the same thing (Haiman 1980: 516)' (Traugott and Dasher 2002: 171).

Because of its abstract nature meaning is inaccessible to direct observation. It is therefore common to use more indirect methods such as paraphrasing to describe meanings and semantic relations. When *actually* can be replaced by *really* the adverbs seem to have the same meaning. If *in fact* cannot be used in the same context this suggests that it does not share this meaning. In addition to paraphrasing we can use translations, ie comparisons with one or more other languages to make meanings of lexical item more tangible and to describe their similarities and differences with related lexical items.

The idea is that we can tap the intuitions or judgments of translators who use their bilingual competence in order to select the most appropriate rendering of a word in the target language as part of their professional activity. Thus using translations to describe semantic phenomena 'brings desirable a multi-lingual perspective into the study of linguistic semantics' (Dyvik 1998: 51). Another advantage is that' the activity of translation is one of the very few cases where speakers evaluate meaning relations between expressions without doing so as part of some kind of metalinguistic, philosophical or theoretical reflection, but as a normal kind of linguistic activity' (Dyvik, ibid).

This approach provides a firm ground for the analysis when words are multifunctional or polysemous and one or more of their meanings overlap with the meanings of other lexical elements. The adverbs of actuality are a good example both of polysemy and overlapping meaning.

If the translator has translated *actually* with the Swedish 'faktiskt' and not with 'egentligen' which has

⁹ The method is presented at greater length in Aijmer and Simon-Vandenbergen (2004, 2007).

a different meaning this suggests that *actually* is polysemous. Moreover *actually* shares a meaning or function with all other lexical items which are translated as *faktiskt*. However translations are raw semantic data which give no information on what grounds a translator has chosen a particular interpretation. Aspects of the context influencing the meaning of the adverbs are probably best studied on the basis of the use of the adverbs in monolingual corpora representing many different text varieties.

We can also use the monolingual corpus to study how lexical items are indexed to social activity and the participants in that activity. This can be done by a more detailed analysis of the adverbs in different text types. This makes it possible to answer such questions as 'why is *in fact* so frequent in court proceedings' and 'what is the function of *really* when we speak on the telephone' etc.

This paper is structures as follows. I first use translations in a parallel corpus to show how the adverbs of actuality are related to each other in terms of similarities and differences. In the second part of the paper the adverbs are further analyzed on the basis of the text types where they are used.

Translation paradigms and multifunctionality

The translational approach will be illustrated with data from English into Swedish. The source for the crosslinguistic analysis is the English-Swedish Parallel corpus, a corpus of about 3 million words consisting of both fiction and non-fiction texts. The translations are from English into Swedish and Swedish into English (Altenberg and Aijmer 2000). Translations constrain the number of senses of a lexical item to those which are represented in the translations. On the basis of corpora we can therefore establish a paradigm or list of the translations of a multilingual source item in the target language.

The translation paradigm provides a rich inventory of forms and provides a window on the meanings of the source item which might be difficult to discover without a corpus. The large number of translations reflects the fact that the paradigm includes meanings which are conventionalized as well as meanings which are implicated only or rhetorical effects of other meanings emerging in context. Further analysis is needed to go from translation to meaning and to show how these meanings are related for example as a core meaning and extensions Single translations and zero correspondences are also important cues to function (Aijmer and Simon-Vandenbergen 2004). Single translations are for instance likely to correspond to contextual meanings.

Tables 1 and 2 illustrate a translation paradigm for *actually* based on translations from English into Swedish (Translation paradigms for *in fact, really* and *indeed* are found in Appendix 1):

Table 1: A translation paradigm for actually

faktiskt	35
i själva verket ('in actual fact')	13
egentligen	8
verkligen ('really')	8
rent av ('practically')	4
other	4
åtminstone ('at least')	3
till och med ('even')	2
i praktiken	2
förresten ('by the way')	1
på riktigt ('in the real way'	1
i verkligheten	1
i realiteten ('in reality')	1
över huvud taget ('at all')	1
ø	35
total	119

Shared and non-shared translations

If two translation paradigms contain partly the same translations this captures the intuition that they occupy an area of shared meaning (the meanings are close to each other in the semantic space). Table 3 shows the translations of *in fact* in the English-Swedish Parallel Corpus. By means of translations we can get some clues to what meanings are shared by the adverbs, what meanings are unique to an adverb, which meanings are the most prototypical or frequent ones, etc. Shared translations with the other adverbs have been marked in bold. ¹⁰

Table 2: Translations of actually into Swedish

tote 21 17 timbrantonis of actually into	
faktiskt	35
i själva verket ('in actual fact')	13
egentligen ('actually')	8
verkligen ('really')	
rent av ('practically')	4
åtminstone ('at least')	
till och med ('even')	2
i praktiken	2

Table 3: Translations of in fact into Swedish

Tuble 5. Translations of in fact thio Sweatsh		
faktiskt	24	
i själva verket ('in actual fact')	14	
faktum är ('fact is')	10	
verkligen ('really')	3	
till och med ('what's more, even')	2	
nämligen ('namely')	2	

Table 4: Translations of really into Swedish

	Swedish translations
verkligen ('really')	47
riktigt ('really')	16
verkligt	4
egentligen ('actually')	45
faktiskt	19
i själva verket ('in actual fact')	2
inte särskilt mycket ('not very much')	2

¹⁰ Single translations and zero translations are not shown.

Table 5: Translations of indeed into Swedish

Tueste 5: Transsaurens of maced into Stream	
verkligen ('really')	20
faktiskt	19
i själva verket ('as a matter of fact')	10
rentav ('practically')	4
ja, (ja) minsann ('yes'), jajamänsan	5
mycket riktigt ('very much the case'), mycket väl,bra ('very well')	3
och naturligtvis ('and of course')	3
i sanning ('in truth'	2
också ('also')	2
faktum är/var att ('the fact is /was')	2
till och med ('even')	2
eller ens ('or even')	2

The translations give some evidence for a core meaning for the adverbs, namely that they refer to what is actual, real, factual. Actuality is not the same thing as certainty but it is closely related to it. If something is actual or real it can be assumed to be true or certain. However, the meanings attested in the translations of the adverbs of actuality are different from adverbs of certainty (such as surely, certainly, obviously, etc) although there would be overlaps. For example lexical items with the meaning epistemic certainty can come to signal uncertainty for pragmatic reasons. A good example is surely which has lost the meaning of certainty and functions as invitation to response (Aijmer and Simon-Vandenbergen 2007: 233). The meaning actuality does not lead to uncertainty although we find translations/meanings referring to certainty such as i sanning 'in truth', sanningen att säga 'to tell you the truth' (translations of indeed). The meaning characteristically derived from actuality is instead to signal that the information is new and surprising (factual evidence).

Some differences between the adverbs involve frequencies. While *faktiskt* is the most frequent variant in the translation paradigms of *actually* (29% or 35/119) and *in fact* (32% or 24/75 exx) it is much less frequent when we look at *really* (14%) or *indeed* (14%). Both *really* and *indeed* have a different translation *verkligen* (really) as their most frequent correspondence. This translation was particularly frequent with *really* (34%) while *indeed* uses *verkligen* or *faktiskt* in about the same proportions (14%).

We can summarize some information that we get from looking at translations/translation paradigms.

- All the adverbs are multifunctional as shown by their translation paradigms
- All the adverbs are related to each other since they share some meaning
- No two adverbs have exactly the same meaning to judge from the translation paradigms
- Translations and translation paradigms can also give some indication of how meanings are organised in the speaker's mind. The meaning which is most frequent as translation is also the prototype from which secondary meanings can be derived by implicature

Meaning and translation

As shown by the translations the adverbs of actuality can be subclassified in different ways depending on their relationship to other members of the same semantic class of semantic field. *Actually, in fact, really* and *indeed* have the common translation *faktiskt*. The meaning indicated by 'faktiskt' reflects the fact that the adverbs are evidential in a broad sense. Besides the strength or reliability of the knowledge evidentiality has to do with whether the knowledge or information is new and unexpected. (cf Chafe's 1986 definition of evidential meaning as involving 'expectation against which knowledge may be matched'). ¹¹ *Faktiskt* expresses that something is unexpected and novel: ¹²

(1) 'All this is just the background of my story,' he says.'I got the idea from Boccaccio. <u>In fact</u>, I first thought I 'd turn the *Decameron* into a script.(BR1)

"Allt det här är ju bara en bakgrund till min historia", säger han. "Idén har jag fått från Boccacio. Först hade jag <u>faktiskt</u> tänkt göra ett manus på *Decamerone*.

The translation with *i själva verket* is associated with refutation and rejection of a previous:

(2) "Certainly," they said.

"You are $\underline{\text{in fact}}$ named as your brother's sole executor.(DF1)

"Absolut", sa de. "Ni är <u>i själva verket</u> utsedd som er brors ende testamentsexekutor.)

The analysis is compatible with Schwenter and Traugott's analysis of the meaning of in fact. According to Schwenter and Traugott (2000: 18), in fact (their in fact2) 'pragmatically reinforces opposition to another speaker's view'. It has the rhetorical function of taking up a stance to a preceding utterance, the hearer or a belief generated by the context (the adversative meaning). I själva verket (as a translation of in fact) does not necessarily involve a contrast but rather that there is more to say (Schwenter and Traugott 2000: 18), 'Pragmatically Q-implicatures [say as much as you can and no more] are brought into play and cancelled'. In other words, in fact2 is used to cancel the implicature that the proposition is all there is to say (Schwenter and Traugott ibidem).

I själva verket is closely linked to the original actuality meaning (what is actually or really the case; cf the translation egentligen); on the other hand it is never emphatic and it does not have the meaning surprise.

(3) "Since you mention it, yes, I'd noticed."Celia said seriously, "The time is coming, in fact it's already

¹¹ In Aijmer and Simon-Vandenbergen (2004) where we discussed *actually* and *in fact* using the translation method we referred to the adverbs as expectation markers. Cf also Traugott and Dasher (2002: 157) definition of *in fact* [Traugott and Dasher *in fact*₂] as meaning counterexpectation (or adversativity): "Counterexpectation " is a term that is often used for propositions that present counters to normative view-points characterisable as "People say/think that X" (Heine, Claudi, and Hünnemeyer 1991: 192-204).

¹² Cf Oh (2000: 254), '[*In fact* and *actually*] are especially useful when the speaker introduces something into the discourse which is unexpected on the part of the hearer'.

here, when women will do many things they have n't done before."(AH1)

"Eftersom du nämner det, ja, jag har märkt det." Celia sade allvarligt: "Den tiden kommer, <u>i själva</u> <u>verket</u> är den redan här, när kvinnor kommer att göra mycket som de inte har gjort tidigare."

Schwenter and Traugott (2000: 173) describe *actually* as similar in meaning to *in fact* in the adversative meaning but weaker in force on the epistemic scale. This is clear in the following example where *actually* is translated as *förresten* ('come to think of it') with the added side-effect of non-importance:

(4) "You don't think she 'll cook cuisine minceur?" "Fat hope," she said.

"Actually we 'll be lucky if there 's any dinner at all "

"Why 's that?" he asked.

'"Oj, tänk om det blir lite men gott -- det franska köket?"

"Inbilla dig inget", sa hon.

"Vi kan <u>förresten</u> skatta oss lyckliga om det blir nån middag alls."

"Hurså?" frågade han.' (FW)

Really and actually have verkligen as their most frequent translation indicating that they are used not only to express a high degree of certainty and truth but rhetorically to insist upon a point of view and to control the way a message is understood.

(5) Earth is <u>indeed</u> the best of all worlds for those who are adapted to it.

Jorden är <u>verkligen</u> den bästa av alla världar för dem som har anpassat sig till den.

Verkligen (emphasis) and faktiskt (new surprising information) are distinct meanings However it is the translator who decides on an interpretation the basis of the context whether the adverb is used to mark new, unexpected information or simply to emphasise something for pragmatic or rhetorical reasons. The meaning verkligen occurred in the translations of all the adverbs but is marginal with in fact which is more closely linked with the evidential meaning surprise and new information. The following example illustrates really with verkligen in the translation but actually could have been used as well:

(6) "Well," he said. "All right. If that 's what you really want."(AT1)

"Jaså", sade han. "All right. Om du verkligen vill ha det på det viset."

(cf for example if that's what you actually want)

In fact and actually would fit less well in the context because of the implicature that there is more to say (cf the translation *i själva verket*'as matter of fact' to expect mild refutation).

When really and indeed were translated with verkligen, they seem to be more concerned with the propositional content than in fact or actually. Really and indeed unlike actually and in fact were for example also used as degree modifiers before an adjective. The degree-

modifying use of *really* was above all found in certain text types. I will come back to this in Section 5.

The closest equivalents to the core meaning actuality and reality are represented by translations such as *egentligen*, *i verkligheten*, *i realiteten* all referring to actuality (cf Schwenter and Traugott *in fact*₁) which contrasts 'with such adverbials as *in imagination*, *in law* and participate[s] in a lexical field encompassing *in practice*, *in reality*, *in actuality*, etc.' (Schwenter and Traugott 2000: 15).

(7) On Saturdays we get into the car with him and drive down to the place where he works. It is actually the Zoology Building, but we don't call it that. It is just the building. The building is enormous.

'På lördagarna sätter vi oss i bilen tillsammans med honom och åker iväg till stället där han arbetar. Egentligen är det Zoologibyggnaden, men så kallar vi den inte. Den är bara byggnaden. Byggnaden är enorm.' (MA)

The synonymy of the adverbs in this meaning can be further tested by substitution. We can compare:

It is <u>actually</u> the Zoology building. It is <u>really</u> the Zoology building.

In fact seems to be more marginal as suggested by the translations (egentligen 1 ex; i verkligheten ('in reality') 1 ex; In fact in the same context can come close. However it is used with counterexpectational or refuting meaning even if the expectation or belief can be hard to recover.

It is <u>in fact</u> the Zoology building. *Indeed* never occurred with this meaning (cf Oh 2000: 267).

In fact and indeed also have translations which indicate that the evidential and certainty meaning can disappear. The new pragmatic meaning is indicated by translations such as till och med, också, faktum är (what's more, besides, it is a fact that) which are focalizing. The translations make explicit the interpretation that the speaker reshapes the message by signalling that what follows is more precise, rhetorically stronger, more objective, more appropriate (cf Schwenter and Traugott (2000)). Cf Schwenter and Traugott (2000:21), 'Thus speakers, often on an ad hoc basis, employ in fact for the purpose of strengthening their rhetorical stance at that point in the discourse'

(8) At the same time, the oil industry will produce cleaner fuels; <u>indeed</u> some of them are waiting for the deadline (EBOW1)

På samma gång kommer oljeindustrin att producera renare bränslen; några av dem väntar t.o.m. på ett startdatum.

Cf *in fact* some of them are waiting for the deadline.

Traugott and Dasher (2002: 172) regard in fact as stronger than indeed: 'In other words, indeed and in fact are on a scale of strength, with in fact the stronger member of the pair.' Actually on the other hand implicates that something is unexpected and

needs to be rejected, ie it has only got the adversative meaning of mild refutation.

'Coping well' is contrasted with the stronger 'seeming exhilarated' in the following example:

(9) My mother appeared to be coping well-; <u>in fact</u> she seemed almost exhilarated.

'Min mor verkade to det ganska så bra: <u>faktum är</u> att hon verkade blomma upp' (JB)

(Cf. indeed she seemed almost exhilarated)

In this meaning *indeed* and *in fact* come close as indicated by the translations. On the other hand there is a big step between the meaning of rhetorical strengthening and its translations and the meaning indicated by *egentligen*, *i verkligheten* (what is actually or really the case) which retains some of the original meaning of actuality.

Indeed is furthermore different from the other adverbs because it could have confirmatory meaning. It was used with unique translations such as *i sanning* (in truth), *ja minsann* (yes), *ju sannerligen* (truly as you know) all of which are epistemic meanings of certainty or confirmation.

By way of summary Table 6 shows the meanings which we minimally need to describe the semantic domain or field of actuality and how the adverbs are distributed over these meanings. It is likely that more semantic dimensions would be found to organize the field if we looked at translations into more than a single language.

The semantic range of a particular form in the semantic space is represented schematically by a feature matrix where the pluses and minuses signal the presence or absence of a particular sense. I have used two pluses for salient meanings. Similarity and remoteness are shown by the number of shared meanings.

Table 6: The lexical field of actuality

1 abie 0. The textent field				
	actually	in fact	really	indeed
Evidential (surprising, unexpected information)	++	++	-	-
actuality (in actuality not in imagination)	+	1	+	1
emphasis	++	-	++	+
confirmation	-	-	-	+
adversative (disagreeing with a belief or expectation)	+	+	- 1	1
scalar or focalizing	ı	+	-	+
intensifier (degree adverb)	•	-	+	+

Table 6 shows for example that *actually* is used with meanings such as evidentiality (new, surprising information), adversative meaning (rejecting or denying that all has been said), emphasis and actuality (in actuality rather than in imagination). *In fact* also indicates evidentiality, actuality, emphasis and

adversative meaning but has in addition developed the meaning rhetorical strengthening.

The translations may give another picture of the meanings of the adverbs than analyses based on the syntagmatic or contextual analysis of the adverbs since we focus on the meanings which are chosen in the translations.

Meaning and text type

The translations give an enriched but 'dirty' picture of the meanings and functions of a lexical item. There are bad translations and the target language may contain traces from the source language. Furthermore single translations and zero-translations may be difficult to interpret. Translation corpora therefore need to be used with caution and together with other methods.

Moreover we do not know on the basis of what contextual signals the translator arrives at the interpretation. In order to understand the relation between meaning or function and form we need to look at the cues which are present in the immediate context in which the adverb is used such as position, collocation and prosody. The choice of meaning is also constrained by external factors such as the social activity itself (for example whether the situation is a political debate or conversation among friends). Sociolinguistic aspects can be studied on the basis of the distribution of the adverbs over different text types.

The information about the distribution of the adverbs is based on the fine-grained classification of text types in the ICE-GB corpus (the British component of the International Corpus of English). The corpus consists of 1 million words distributed over a large number text types in speech and writing. (The subcategories of text and the distribution of the adverbs over the different types are specified in Appendix 5).

Not surprisingly all the adverbs are more frequent in speech than in writing but there are differences between individual adverbs. For example *actually* was almost ten times as frequent in spoken language as in writing and *really* was seven times as frequent in speech as in writing. On the other hand, *indeed* was only four times as frequent in speech as in writing which is similar to the distribution of *in fact*. The high frequency in spoken language does not mean that the adverbs are frequent in conversation only but we need to consider a number of different categories of spoken English. It is important to also consider where they occur in written text types.

We know from earlier studies that the adverbs can vary their meaning depending on text type. Thus Biber and Finegan (1989) have investigated stance markers (expressions of 'attitudes, feelings, judgments and commitment concerning the propositional content of a message') in different text types. They identified the stance markers in the LOB and the LLC corpora on the basis of their frequencies in the corpora and sorted them into clusters representing different stance styles based on the common situational characteristics of the

cooccurring text types in speech and writing. Certainty adverbs (which include the adverbs discussed in this paper) were for instance frequent in the cluster evidentiality': 'interactional an 'involved conversational style' characteristically made up of face-to-face conversation and telephone conversation (and a sprinkling of other texts such as public conversations, personal letters, radio broadcast, academic prose). The adverbs were however also frequent in the cluster 'oral conversational persuasion' where the majority of texts were spontaneous speeches, interviews, public conversations and romance fiction and characterised as 'informational discourse where there is a certain amount of controversy or disagreement concerning the topic of discussion' (Biber and Finegan 1989: 115).

The ICE-GB Corpus allows an even more fine-grained analysis of the adverbs on the basis of a large types of spoken and written texts. We can for instance study the use of the adverbs is public dialogues such as classroom lessons, parliamentary debates and legal cross-examinations and make comparisons with unscripted monologues such as speeches. The written texts range from professional writing to more popular genres and fiction. It is obvious that even adverbs which have a similar meaning can have a different text type distribution and are indexed to different social situations, activities or events and their participants.

Taking a look at the frequencies of the adverbs in the ICE-GB corpus we can see for instance that *in fact* was infrequent in face-to-face conversation (only 38 examples per 100, 000 words) and in telephone conversations, i.e. in very interactive text types. The lowest frequency was in broadcast talks. On the other hand, *in fact* was common in demonstrations, in unscripted speech and in legal cross-examinations. In the written part of the corpus *in fact* was frequent in business letters and in popular writing, especially in the natural sciences.

Demonstrations (and unscripted speeches) are monologues. A typical example of a demonstration in the corpus would be a lecture where the speaker is explaining or demonstrating something to an audience who do not interfere. There is a link between text type and a particular function of *in fact. In fact* in demonstrations was typically used to present the information as novel, unexpected or even remarkable (evidential meaning). The lecture from which the following example is taken takes place in the university and is about caricatures and satires in art.

(10) now you've got no uh physiognomies uh physiognomies are always distorted but you notice that dress is often used to signify different social class here uhm there you've got the fops gentleman uhm and there is a satire on an individual this time uhm <,> this is in fact a satire on the Earl of Burlington (S2A-057 43)

In fact in demonstrations has medial rather than initial position. If the speaker had said In fact this is a satire

on the Early of Burlington this would have sounded less like a demonstration or a lecture. In fact in initial position would be used to strengthen the assertion and make it more precise (the rhetorical in fact).

The next example has a similar provenance and shows how *in fact* is used to attract the audience's attention to an unusual event:

(11) You've got the Monument which is in effect a kind of takeoff of the uhm monument to the Great Fire of London and this monument here was in fact erected in memory of the destruction of the city by the South Sea uh Islands in fact not by fire (S2A 57 12)

The aspect of novelty and unexpectedness was also a feature of *in fact* in academic writing and in business letters:

(12) I see that your statement is <u>in fact</u> despatched to you in the middle of the month. (Business letter: W16-016019)

In fact has the highest frequency in legal cross-examinations. In fact was also more frequent in this context than any of the other actuality adverbs. In the following example the lawyer cross-examines the witness:

(13) So you didn't speak to Mr. Sherwood. But you must at some time have told Mr. Sainsbury who your solicitor was.

yes

And in fact it's written in the letter which I gave him before we went away whom he should contact. (S1B 061 175)

And in fact is part of the prosecutor's argumentation. Unlike in fact in demonstrations it has a rhetorical or focusing function. By means of in fact the speaker summarises and makes more precise the results of the interrogation in the cross-examination. The following example is also from a legal cross-examination and illustrates how (so) in fact is used when some extra elaboration is needed:

- (14) so in fact I have seen cases with people with dermatitis who have green cards. (S1B 062110) In cross-examinations in fact can convey a request for confirmation as a pragmatic effect:
- (15) and that is <u>in fact</u> what you went through with me Yes indeed (S1B065 032)

Actually has a different text type distribution from in fact reflecting the fact that it has partly different functions. Actually was frequent in face-to-face conversation, telephone conversation, and business transactions, that is in text types implying a high degree of interaction and involvement. In these text types it was also frequent in final position with a polite or softening function. In writing actually was most frequent in more informal categories such as social letters and popular writing within the humanities and social sciences.

The following example is from business transactions, the text type where *actually* occurred with the highest frequency (also compared with all the other adverbs of

actuality). Actually functions as a hedge with a polite or softening function.

(16) Yeah that's right

Well I'm not surprised actually

It's absolutely

I mean what with all the things that are going at the moment.

(S1b-073 044)

In text types characterised by dialogue and involved interaction the function of *actually* is shared by *really* rather than by *in fact* as seen by the (fairly) high frequency of *really* in this category of texts. In the example above *actually* could for instance have been replaced by *really* (or *in fact* with the same meaning).

In demonstrations *actually* is even more frequent than in face-to-face or telephone conversations (and it is also more frequent than *in fact*). However in demonstrations *actually* is typically used to correct or contradict an earlier statement (the adversative rather than evidential meaning). The following example comes from a biology lecture and illustrates another contextual meaning of *actually*. In the following example (unlike example 17) *actually* cannot be replaced by *really*.

(17) It's not in the red blood cells. It's <u>actually</u> cells of our body. And <,>very luckily for us their enzyme spectrum has an absorption spectrum that changes depending on whether the enzyme is oxygenated or deoxygenated (S2A 053 25)

Indeed has in common with in fact that it was infrequent in face-to-face and telephone conversation. 13 On the other hand it was typical of parliamentary debates (and of non-broadcast speeches) where both in fact and actually were infrequent. The function of indeed in parliamentary debates is to strengthen the assertion or argument (the rhetorical use of indeed) by adding more certainty especially in the combination and indeed. Indeed was for instance almost twice as frequent in parliamentary debates as in broadcast discussions. In the following example indeed is part of a series of certainty expressions which are used to argue in favour of a certain position and to express disagreement with the opponent in the debate.

(18) Is it not in accordance with your ruling a few minutes ago and indeed with the conventions of the House generally that of course a member who has to declare his interests should do it at the beginning of his speech so that members should be able to judge what he's saying. And surely if a member decided he was only going to declare his interest at the beginning of his speech a large part of the uh provision would be made void So I do hope Mr Speaker you will urge....

Indeed was the only one of the actuality adverbs which was characteristic of debates. *In fact* was infrequent in debates but was used in cross-examinations, ie is a text

¹³ Indeed in different text types is dealt with at more length in Aijmer and Simon-Vandenbegen (2007).

type controlled by one of the participants. Thus although *in fact* and *indeed* both have a rhetorical and focalizing meaning they are used in different text types.

Indeed was also frequent in academic writing. As in the debate the argumentation presupposes a certain amount of planning and organisation.

Really was frequent in face-to-face conversation, telephone conversation and broadcast interviews to mark emphasis. These are categories where actually is also frequent. The highest frequency was in telephone conversation where really had a frequency of 500 examples per 100, 000 words to be compared with in fact which occurred in telephone conversation only 25 times per 100,000 words. In the written categories really (and actually) were most frequent in social letters, a text type which is closely related to conversation and spoken language. On the other hand really was less frequent than actually in academic and popular writing.

The following example illustrates *really* in telephone conversation.

(19) I was just phoning up for one of our silly conversations really (S1A-091 -151)

Really has the metalinguistic function clarification or explanation but is used with a softening function here. In this example *really* could be replaced by *actually*.

Many examples of *really* in face-to-face and telephone conversation were degree intensifiers. On the other hand *really* in broadcast interviews was never used in this way.

We end up with a complex picture of how the adverbs can be characterised with regard to text type and what their function is in different text type. For example, actually and really have in common that they are frequent in interactional text types with a typical polite function. On the other hand, actually and in fact (but not really) are frequent in demonstrations but not necessarily with the same function. In fact conveys the meaning of novelty in addition to other meanings such as factual evidence. Actually seems to be more closely linked with the adversative function to refute an earlier statement. In cross-examinations on the other hand in fact had the functions of rhetorical strengthening or elaborating (making something more precise, summarize) with the implicature request for confirmation. Indeed on the other hand was typically in parliamentary debates with the meaning rhetorical strengthening.

Conclusion

Modal adverbs are notoriously difficult to study because their meanings vary depending on both the immediate syntactic context and the social context. It follows that they occur in many different lexical fields. For example *in fact* occurs together with lexical items such as *what's more* and *indeed* (Schwenter and Traugott 2000) in some of its uses but it can also have

the same meanings as *actually*. Such observations cam be strengthened by considering how their meanings are 'mirrored' in the translations into a target text.

The contrastive or translation method has the effect to sharpen the description of the polysemy or multifunctionality of the adverbs and to show how they are related to each other in terms of shared or different meanings. The adverbs can be analyzed in terms of how they divide up the semantic space consisting of meanings such as novel and surprising information, actuality, adversative meaning, strengthening of argumentation.

The functions of the adverbs can be further characterized with regard to frequency in different text types in speech and in writing. By taking into account text type for example if the adverb is used in a demonstration or debate or informal conversation we can throw light on the correlation between function and social activity.

Appendix 1

Table A1: Translations of actually into Swedish

faktiskt (in fact)	35
egentligen (in actual fact)	8
i själva verket (in actual fact)	13
verkligen (really)	8
rent av (practically)	4
åtminstone (at least)	3
till och med (what's more)	2
förresten (by the way)	1
på riktigt (for real)	1
i verkligheten (in reality)	1
i praktiken (in practice(2
i realiteten (in reality)	1
över huvud taget (at all)	1
other	4
Ø	35
total	119

Table A2: Translations of in fact into Swedish

Tuble 112. Translations of in fact thio Swea	isii
faktiskt (in fact)	24
i själva verket (in actual fact)	14
faktum är (fact is)	10
verkligen (really)	3
till och med (even)	2
nämligen (the reason is that)	2
i verkligheten (in reality)	1
de facto	1
rent av (practically)	1
väl (surely)	1
förstås (of course)	1
nog inte utan (probably)	1
egentligen (in actual fact)	1
Ø	13
total	75

Table A3: Swedish translations of really

verkligen ('really')	47
riktigt ('really')	16

verkligt	4
egentligen ('actually')	45
faktiskt ('in fact')	19
i själva verket ('as a matter of fact')	2
särskilt mycket ('very much')	2
ändå ('anyhow')	1
mycket ('much')	1
i grund och botten ('basically')	1
är det säkert ('is it certain')	1
är det sant ('is it true')	1
alldeles ('quite')	1
banne mig ('in truth'	1
allt ('indeed')	1
i praktiken ('in practice')	1
på allvar ('seriously'	1
direkt ('directly')	1
alls ('at all')	1
en riktig ('a veritable')	1
förstås ('of course')	1
i sanning ('in truth')	1
men ('but')	1
bara (inte) ('only not')	1
på hedersord ('on my word of honour')	1
Ø	135

Table A4: Translations of indeed into Swedish

verkligen ('really')	20
faktiskt ('in fact')	19
i själva verket ('as a matter of fact')	10
rentay ('practically')	4
(ja) minsann ('yes'), jajamänsan	3
mycket riktigt ('very much the case')	3
och naturligtvis ('and of course')	3
i sanning ('in truth'	2
också ('also')	2.
faktum är/var att ('the fact is /was')	2.
ja ('yes')	2
mycket väl/bra ('very well')	2
t.o.m ('even')	2
eller ens ('or even')	3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
ju sannerligen ('truly as you know')	1
egentligen ('actually')	1
italics	1
och ('and')	1
nu faktiskt ('now in fact')	1
formligen ('really')	1
fastän ('although')	1
visst ('certainly')	1
för den delen ('for that matter)	1
väldigt ('really indeed')	1
jättemycket ('very much')	1
jovisst ('certainly')	1
i stället faktiskt ('instead actually')	1
och vilket är viktigt ('and what is important')	1
ju faktiskt ('in fact as you know')	1
men ('but')	1
och till och med ('and even')	1
och rent av ('and practically')	1
och även ('and even')	1
och i hög grad ('and to a large extent')	1
blott och ('only and')	1

utmärkt ('extremely')	1
tvärtom ('on the other hand')	1
om ens ('if even')	1
visst men ('certainly but')	1
om sanningen ska fram ('to tell the truth')	1
förvisso ('certainly')	1
Ø	28
other	4
total	135

Appendix 2

Table A5: Frequencies of in fact, actually, indeed and really in ICE-GB. Frequencies have been normalized to 100, 000 words.

	ct	ally	pa	y
	in fact	actually	indeed	really
Spoken				
Private dialogue				
direct conversation	72 (38)	392 (211)	11 (5.9)	682 (368)
telephone conversation	5(25)	46 (230)	-	100 (500)
Public dialogue				
classroom lessons	20 (100)	98 (233)	46 (14.2)	60 (142)
broadcast discussions	29 (67)	72 (167)	18 (41.8)	79 (183)
broadcast interviews	9 (40)	37 (168)	7 (31.8)	66 (300)
parliamentary debates	10 (47)	8 (38)	17 (80.9)	8 (38)
legal cross-	32 (152)	23 (109)	8 (38)	17 (80)
examinations	10 (50)	54 (270)	2 (15)	42 (210)
business transactions	10 (50)	54 (270)	3 (15)	42 (210)
Unscripted monologue				
spontaneous commentaries	19 (45)	12 (28)	22 (52)	52 (123)
unscripted speeches	55 (83)	103 (156)	14 (21.2)	58 (87)
demonstrations	30 (136)	53 (240)	5 (22.7)	35 (159)
legal presentations	15 (71)	2 (9)	3 (14.2)	16 (76)
broadcast news	2 (4)	9 (21)	11 (26.1)	18 (42)
broadcast talks	8 (18)	16 (37)	18 (42.8)	16 /37)
non-broadcast speeches	14 (66)	3 (14)	13 (61.9)	6 (28)
Written				
Non-printed				
Non-professional				
student essays	4 (19)	1 (4.7)	7 (33)	3 (14)
student examination	5 (23)	0 (20)		6 (29)
scripts	3 (23)	8 (38)	-	6 (28)
Correspondence				
social letters	8 (25)	19 (61)	2 (6)	71 (229)
business letters	11 (35)	1 (3)	5 (16)	8 (26)
Printed				
Informational/Learned				
humanities academic writing	5 (23)	7 (33)	12 (57)	-
social sciences academic writing	4 (19)	7 (33)	10 (47)	1 (4.7)
natural sciences	6 (19)	2 (9.5)	1 (4.7)	2 (9.5)
academic writing technology academic	1 (4)	1 (4.7)	_	1 (4.7)
writing	(' '	···/		()
Informational/Popular	- ()	40 (15)	5 (0.0.0.0.	0.45.11
humanities	5 (21)	10 (43)	7 (30.4)	8 (34)
social sciences	4 (19)	9 (42)	8 (38)	10 (47)
natural sciences	6 (30)	3 (15)	2 (10)	5 (25)
technology	3 (14)	4 (19)	3 (15)	9 (47)

	in fact	actually	indeed	really
Informational				
press news report	5 (12)	3 (7.3)	1 (2.4)	2 (4.8)
Instructional				
administrative regulatory	-	6 (28)	-	1 (4.7)
skills /hobbies	5 (23)	2 (9.5)	1 (4.7)	5 (23.8)
Persuasive				
press editorials	2 (10)	2 (10)	8 (40)	5 (25)
Creative				
novels/stories	6 (15)	8 (19)	3 (7.1)	28 (66)

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Spelling in the Mind: phonemicgraphemic correspondence hypotheses

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This study is an attempt to investigate the orthographic systems that operate in the mind of native speakers of English - not so much their spelling competence in respect of mental lexicons, but rather orthographical systems themselves as a resource for spelling novel words or dialect words or even nonsense items that conform to the rules of English word phonology. For instance, how might an English speaker spell a 'word' they heard as /kli:/? That is, what choices would they make from possible options; what are the systems in the mind that they could choose from; what is the total resource they hold in their minds for such a task? And, what strategies do they adopt when called upon to engage in such a task?

People have to engage in such a task if, for instance, they need to write a list of surnames of people who they are not familiar with, or if they need to write down what is to them an unfamiliar word when taking notes in a lecture. The reverse task is also often required: how to pronounce a name from its written form if they have never heard it before (how do you pronounce Loughton as the name of an underground destination in London?), or a pharmaceutical name, let's say, like Ibuprofen, when you need to get some in a chemist's shop. This particular task is a matter of matching graphemes with phonemic correspondences, but the former task – which we are attempting to investigate in this study - is to match phonemes and phonemic sequences with corresponding graphemes that are stored in the mind. So, for example, if a native speaker of English hears the name /'lauten/, how do they write it down if they have never seen it spelled? And what choices do they make? And what difference does it make if, instead, that 'word' is presented, say, as a verb?

If we follow Sebba's recommended use of the terms *spelling*, *orthography*, *script* and *writing system* (Sebba 2007:10-11), we might conclude that we are investigating a native speaker's deployment of the Roman script (= writing system) according to English orthographical rules that are stored in the mind to represent phonemic-graphemic correspondences in the spelling of novel words or actual coinages.

The study draws explicitly from four distinct 'practices' in applied linguistics, or 'ways of doing things' (Fairclough 2007), namely psycholinguistics, studies of social practice, description (for contrastive

analysis) and field studies in orthography for unwritten languages. The main inspiration from psycholinguistics is Aitchison (2003), in which the mental lexicon is described in terms of a series of networks including the phonological, but, perhaps surprisingly, omitting the orthographical. She devotes considerable space to sound patterns and structure, but spelling receives scant attention, despite the observation that people who are literate know (or think they know!) how to spell all the words they can use. Derwing & Dow (1987) supplies examples of orthography in psycholinguistic research, and Derwing, Priestly & Rochet (1987: 45) actually suggests the kind of investigation that we have invested attention in.

An examination of social practice in orthography is amply provided by Kress (2000) in the case of children's attempts at expressing meaning and creating an impact through their spelling, and by Sebba (2007) in the case of graffiti from around the world. We would be investigating how a group of adults engage their orthographic competence as a resource for the spelling of novel or unfamiliar words, and discovering the degree of agreement among them.

Thirdly, descriptions of the correspondences between graphemes and phonemes in English abound: for example, Wijk (1966), Venezky (1970), Scragg (1974), Carney (1994), Rollings (2004), Brown (2005), Ott (2006). Cook (2004) is a more light-hearted approach to the subject, but very illuminating. Contrastive studies in orthography, however, do **not** abound although Lado (1957) devoted a separate chapter to 'writing systems'. Van Berkel (2005) is an example of a recent study, in this case contrasting Dutch and English spelling from the angle of a Dutch person learning English.

The fourth kind of practice in applied linguistics that is relevant to this particular investigation is the work of creating orthographies for unwritten languages. Practical measures, of an applied linguistic nature, for such an enterprise have been in place since Pike (1947) and Smalley (1963). Recent work includes Winter (1983), Coulmas (1989), Hinton & Hale (2001), Grenoble & Whaley (2006), Gippert, Himmelmann & Mosel (2006), and is exemplified in Tench (2007). The approach invariably involves a description of the phonology of a language as one basis for the creation of an orthography, with phonemes being matched to graphemes.

Bases for the hypotheses

The focus of enquiry was to ascertain whether adult native speakers of English have a developed orthographical system that in some senses at least is parallel to a mature phonological competence, given the extensive discrepancy between pronunciation and spelling in current English. It seemed best to investigate this possibility by asking a group of adults to try and spell unfamiliar words from dictation, and see what correspondences between phonemes and letters each person displayed, and to what degree those adults held such correspondences in common. Thus, we

would be able to see whether there was a system in the use of the orthographic resources in the mind, and offer an explanation to supplement Aitchison (2003).

Detailed hypotheses were prepared to cover British adults' competence in all the phonemic -graphemic correspondences that are required for English, based on observations of the most common and regular ways of representing each phoneme. It soon emerged that this was not to be a simple task. It became quickly apparent that we three collaborators did not share a simple equivalence of phonemes and letters, and that differences between us led us to realize that not only were there variations for many correspondences, but also that position in a word would be critical, and word class also: there does seem to be a paradigm shift in the orthographic conventions for 'common' and technical words. The designation 'technical/scientific' was unproblematic, but we took some time to agree on a term to describe 'non-technical' words; the term 'common' was chosen as the least problematic.

Another paradigm shift appears to happen with the spelling of words deemed to be of foreign origin; we did not have the resources to investigate this notion, but evidence for it did eventually appear in the analysis of the experimental data.

Eventually, the set of hypotheses comprised 10 general hypotheses and a series of hypotheses for each consonant and vowel phoneme for both common and technical words. They were all tested in pilot and full experiments that involved the dictation of 50 'novel' words; the hypothesis that participants would distinguish one system for 'common' words from a system for technical words was also tested. The data was analyzed for both the degree of uniformity among the subjects and the degree of conformity to the set of hypotheses.

The hypotheses that eventually emerged are based on the following assumptions:

- that we all store all our words in our minds; each person has their own personal store, which might be called their 'mental lexicon' – whatever their language or languages, and whatever their age or cultural background
- that all literate people store for each word a pronunciation and a spelling, in addition to meanings, sense relationships to other words, connotations, collocations, syntactic behaviour, etc
- that all literate people are aware of the pronunciation and spelling of each word in their mental lexicon and can call them to mind (even if a spelling happens not to conform with standard forms as found in published dictionaries see Cook 2004)
- that most linguistically untrained people are not aware of the phonological and orthographical systems that operate in their minds that regulate the pronunciation and spelling of each word · that there is a small minority of words in each person's lexicon which they feel uncertain about

- in either pronunciation or spelling, or both (see, for example, Kress 2000: 25); but these uncertainties do not undermine the claim for the existence and operation of either the phonological or the orthographical system
- that the orthographical system derives from the phonological system in all cultures that use a non-semantic writing system, i.e. those that use alphabets, syllabaries or some form of rebus writing (in which visual images stand for sound, not meaning in contrast to pictographs)
- that just as it is possible to investigate the nature and operation of a phonological system, it is also possible to investigate the nature and operation of a corresponding orthographical system.

That final assumption is, basically, what we set out to do.

The following hypotheses relate to the English orthographic system for British adults. They have been set out as a basis for investigating the nature and operation of orthographic competence as a resource for spelling novel words which conform to the phonological structure of British English words, i.e. the productive orthographic system in the mind. The hypotheses are based on high frequency, regular, conventional correspondences between phonemes, phonemic sequences and syllable structure on the one hand and orthographic correspondences on the other; we believe that, as a general rule, this productive orthographic system will ignore low frequency, irregular, idiosyncratic spellings, such as

- for /k/ and /kw/ liquor, liqueur, lacquer, choir
- 'silent' letters as in *wrap*, *white*, *two*, *who* but it will not ignore a perception of foreign loan words and technical terms, for which different systems exist.

It should be noted that the hypotheses do not correspond to a phonemic -style re-spelling transcription system as exists, for instance, in the *Oxford BBC Guide to Pronunciation* (Olausson & Sangster, 2006). Nor do they correspond to the type of 'regularized spelling' that is advocated for language teaching purposes — see, for example, Derwing, Priestly & Rochet (1987). These provide written forms as guides to pronunciation, i.e. grapheme -to-phoneme correspondences.

Rather, the hypotheses in our study seek to represent the **Sound-to-Spelling** (phoneme-to-grapheme) correspondences that exist as a system in the mind, which enables a native speaker/writer to **do** something, namely to spell novel, native-like words. We are well aware that issues of age, gender and accent have to be taken into account. For example, on hearing a 'word' as /va:0/, an adult with a southern British accent may well 'spell' it as <vath>, whereas a Northerner may well be more likely to 'spell' it as <varth>. However, for the sake of ease of reference, the phonemic inventory that the hypotheses are based on is that of Southern England Standard Pronunciation (formerly known as 'RP'):

Con	nsonants	
plosives:	p, b, t, d, k, g	
nasals:	m, n, ŋ	
fricatives:	f, v, θ, ð, s, z, ∫, ʒ, h	
affricates:	t∫, dʒ	
approximants:	l, r, j, w	
Vowels: strong		
short:	Ι, ε, æ, υ, υ, Λ	
long monophthongs:	i:, a:, o:, u:, 3:	
long diphthongs:	ei, ai, ɔi, əu, au, iə, ɛə, uə	
Vowels: weak:	i, u, ə	
Stress	primary and secondary	
	stress, and no ('weak')	
	stress	

The orthographic system is presented as sets of 'graphemes', with terminology deriving from Sgall (1987):

(1) 0 /):	
'protographemes' (single letters):	a, b, c, d, e, etc
which may be 'doubled':	bb, cc, dd, ee, etc
'bigraphemes' (regular pairs	ch, sh, th, ai, ay, ea, er,
for single phonemes):	ge, etc
'trigraphemes' (regular trios	air, are, ear, eer, oor,
for single phonemes):	our, etc
'quadrigrapheme' (regular quad for single phoneme):	aire

Thus a 'grapheme' may consist of one or more letters to represent a single sound. One 'quasiprotographeme' (a single letter that corresponds to a phoneme sequence) is recognized: <x> for /ks/ or /gz/; and one 'quasi-bigrapheme' (a regular pair for a phoneme sequence) is recognized: <qu> for /kw/. Phonemes are represented as: /b/; graphemes as .

The hypotheses are presented as

- predictions ("that they will..."; 67% 100%)
- options ("that they will ... either ...or" ...; 33% 66%)
- possibilities ("that they may ..."; 1% 32%)

General hypotheses

We postulate 10 hypotheses of a very general nature that relate to the use of the alphabet, stress, grammatical information and lexis:

- G1 that adult native speakers of English will utilize all the letters of the Roman alphabet as used for Standard English for attempting to spell novel words that conform to word phonological systems of English
- that they will use the consonant letters <b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, y, z> as single graphemes ('protographemes'), in all positions of a word, except <h, j, k, v> in final position.
- G2a that they will also use the consonant letters <b, c, d, f, g, l, m, n, p, r, s, t, z> doubled in certain context s ('double graphemes')
- **G2b** that they will not use the consonant letters <h, j, k, v, w, x, y> doubled
- G2c that they will use the following consonant letter pairs ('bigraphemes') to represent single phonemes: <ch, ph, sh, th; sc; ck, dg>

- **G2d** that they will use <tch> as a 'trigrapheme'
- G3 that they will use the vowel letters <a, e, i, o, u> as single graphemes
- **G3a** that they will use the vowel letters <e, o> doubled to represent single phonemes
- G3b that they will not use the vowel letters <a, i, u> doubled
- G3c that they will use the following vowel letter pairs ('bigraphemes') to represent single phonemes: <ai, au, ea, ia, ie, oa, oe, ou, ua, ue>
- **G4** that they will also use combinations of vowels and consonants to represent single phonemes
- G4a that they will use each vowel letter with <r> as pairs ('bigraphemes') to represent single phonemes: <ar, er, ir, or, ur>
- G4b that they will use the following pairs ('bigraphemes') in word-final position: <aw, ay, ew, ow, oy; se, ce, ge, ve; ci, si, ti> and also the following sequences ('trigraphemes' and one 'quadrigrapheme') in word-final position: <gue, the, dge; air, are, ear, eer, ere, ire, igh, oar, oor, ore, our, ure; aire>
- G5 that they will use <x> as a 'quasiprotographeme' to represent /ks, gz / and <qu> as a 'quasibigrapheme' to represent /kw/
- G6 that they will use a minimum of three letters for any word that is perceived to be a 'common' lexical item, even though grammatical items may consist of only one or two letters the 'three letter rule'. (Compare *I/eye*; *an/Ann*; *at/add*; *so/sow*; *be/bee*, etc; but note *do*, *go* as lexical as well as grammatical items. There is one notable exception: *ox*.)
- **G6a** that they may use a minimum of two letters for a word perceived to be a foreign loan word or a technical term: *id*, *pi*
- G7 that they will not indicate stress
- G8 that they may use a hyphen <-> as a link between a morpheme with a perceived final vowel letter and a morpheme with a perceived initial vowel letter, e.g. co-operate, de-ice, psycho-analysis
- **G9** that they may take account of grammatical and lexical information in specific cases, eg
 - the interpretation of word-final /-ks/ as a component of a base form (e.g. tax, fix, lax), or the s-form of a noun or verb (e.g. lacks), or as a non-count noun denoting a branch of study (e.g. physics); or word-final /d/ as a component of a base form (e.g. pride), or the past tense form of a verb (e.g. pried), etc;
 - parts of words that conform to perceived morphemes, ie inflections, and derivations like *-tion*, *-al*, *-ous*, etc;
 - perceived word classes, e.g. word-final /əs/ as an adjective (e.g. *calamitous*), or a
 noun denoting an object (e.g. *apparatus*)
 or, for some speakers, a noun denoting a
 medical condition (e.g. *arthritis*); or wordfinal /-l=, -əl/ as a noun (e.g. *title*) or an
 adjective (e.g. *vital*), etc
- G10 that they will distinguish a spelling system for words that are perceived to conform to common

English words from those that are perceived to conform to technical words or loan words from another language.

Evidence for **G10** includes the relative lack of double graphemes in technical words. In common words, a doubled consonant letter usually indicates a single consonant phoneme with a preceding short vowel in a non-final syllable, e.g. *supper* in contrast to *super* and *sup*. If, however, the short vowel is spelled with a vowel bigrapheme, e.g. as in *couple*, the doubled form does not occur; compare *supple*.

Furthermore, the doubled form occurs in common monosyllabic lexical items that have no onset consonant, as **G6** (the 'three letter rule'); other examples are ass, ebb, egg, ill, inn, odd (also err). The doubled form often also occurs as a single consonant phoneme after an initial weak but before a following strong syllable, in words of Latin origin, e.g. supply, appear (compared with apart), effect (cf elect), immense (cf imagine), oppose (cf opaque).

On the other hand, doubled consonants rarely appear in technical words. This no doubt reflects the classical origins of technical words, since the distinction between long and short vowels is not a feature of Classical Greek and Latin phonology; and doubled consonants are generally confined to morpheme boundaries, as in the examples immediately above. Indeed, words of classical origin that entered the English language as a result of the Renaissance often offended the historical Anglo-Saxon 'rule', which was designed to compensate for the relative lack of vowel letters in the Roman alphabet for the larger vowel systems of Germanic languages. A few examples must suffice: chapel (compared with apple), model (cf muddle), metal (cf mettle), stomach (cf tummy). Nevertheless, the observation remains that generally speaking, it is the stock of common words that employs the doubled consonants, rather than the technical words.

It is also the case that the stock of common words employs doubled vowel graphemes, but that technical words do not; again, this reflects the simpler vowel inventories of the Classical languages.

Technical words also display a variety of alternative bigraphemes for single consonants, e.g. <ph> for /f/, <ch> for /k/, <rh> for /r/. Furthermore, there is no /ð/; /j/ is confined to occurring with /u:/; /w/ is rare apart from occurring with /k/; /ʃ, tʃ/ do not, as a rule, occur in word-initial position. <j> rarely is used for /dʒ/. Technical words also use <y> as an alternative to <i>; all the vowel letters, as protographemes, are used for both long and short vowels, e.g. <i/y> for both /I, al/ (e.g. glycerine; glycogen); <e> for /ɛ, i:/; <a> for /æ, eı/; <o> for /p, əo/; <u> for /л, u:/. The vowels /o, ao/ do not seem to occur in technical words. The centring diphthongs - /1ə, ɛə, və/ - are more usually spelled with final <a> rather than with <r>>.

It is thus necessary to distinguish between hypotheses of phonemic -graphemic correspondences in the registers of common and technical words. It would also be necessary to establish another set of hypotheses for words that sound like foreign loan words, e.g. with word-final /ʒ/ and with word-final primary stress after an earlier secondary stress, e.g. /ˌbu:ˈkei/ (bouquet), /ˌmeizəˈnet/ (maisonette); but that is beyond the scope of this present study.

Hypotheses for phoneme-grapheme correspondences

Common words

The hypotheses are set out simply phoneme by phoneme. The consonants have a basic form, a doubled form and, in some cases, a special form. The **basic form** is the grapheme which represents the consonant phoneme

in word-initial position;

in *medial* position after a long vowel, or a short vowel perceived as a vowel bigrapheme, and after a weak vowel:

in *final* position, including before another consonant, but excluding the case of a monosyllabic lexical item that has no onset consonant.

Example: pat, paper, staple, couple, callipers, multiple, tap, apt, tulip.

The **doubled form** is the grapheme which represents the consonant

in *medial* position after a short vowel perceived as a single grapheme (protographeme), and optionally after a word-initial weak vowel;

in final position in a monosyllabic lexical item that has no onset consonant (the 'three letter rule').

Example: supper (~super), apart/appear, ebb.

Any **special form** is the grapheme which represents the consonant in specific environments, as indicated.

Table 1 should be read as: for the given phoneme x adult native speakers of English will use grapheme y in its basic or doubled form as required, except in special cases when they will use either one grapheme or another (ie "optionally"), or may (ie "possibly") use an alternative grapheme z. The simplest hypotheses are listed first, roughly following the traditional order of phonological studies:

Table 1: Phonemic-graphemic correspondence hypotheses for consonants in common words

	Basic	Doubled Special	
p	p	pp	
b	b	bb	
t	t	tt	
d	d	dd	
m	m	mm	
n	n	nn	
f	f	ff	ff also in final position after a short vowel, in lexical items (e.g. <i>cuff, mastiff</i>)
r	r	rr	
h	h		

k c before <a, o,="" u=""> and consonants; in fin position after weak /u/ (e.g. music) before <a, i,="" y="">; in final position after low vowels and short vowels perceived as vow bigraphemes (e.g. beak, book) optionally for <c> after word-initial we vowel (e.g. account/acute) ck as the doubled form after a short vow perceived as a single grapheme; in fin position after short and weak vowels (oth than weak /u/) (e.g. pack, paddock) qu for the sequence /kw/ (e.g. frequent) x for the sequence /kw/ (e.g. frequent) for the sequence /kw/ (e.g. frequent) substitution of the sequence /kw/ (e.g. frequent) for the sequence /kw/ (e.g. frequent) substitution of the sequence /kw/ (e.g. gue: guide, guy) gue in final position after long vowels (e.g. suide, guy) gue in final position after long vowels (e.g. suide, guy) v v vein final position (e.g. have) the infinal position (e.g. have) substitution of the infinal position after a low vowel (e.g. harness, palace) possibly as or ce for word-final /s/ after weak vowel (e.g. harness, palace) possibly as or ce for word-final position after a short vowel (e.g. harness, palace) possibly as or efor word-final position after a short vowel (e.g. harser, ef gas), and the long vowel (e.g. harser) substitution of the palae of the weak vowel, optionally so the free for some infinal position after a low vowel (e.g. prise, prize) sin final crismo (e.g. prism) zu zo optionally so in medial position after a low vowel (e.g. prise, prize) sin</c></a,></a,>		Basic	Doubled Special	
before <e, i,="" y="">; in final position after for yowels and short yowels perceived as yow bigraphemes (e.g. beak, book) cc</e,>	k	с		before <a, o,="" u=""> and consonants; in final</a,>
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cc bigraphemes (e.g. beak, book) optionally for <<> after word-initial we vowel (e.g. account/acute) ck as the doubled form after a short vow perceived as a single grapheme; in fin position after short and weak vowels (oth than weak //) (e.g. pack, paddock) qu for the sequence /kw/ (e.g. frequent) for the sequence /kw/ (e.g. axle), except in final unstressed syllable in a noun denotic study (e.g. electronics) g gg possibly gu before <e, i,="" y=""> (e.g. gue: guide, guy) gue in final position after long vowels (e. exist) n n, ng n before consonants; ng in final positio (e.g. wink, wing) v v in final position (e.g. have) the the infinal position (e.g. heathe) the the infinal position (e.g. heathe) the the infinal position (e.g. breathe) s optionally c before <e, i,="" y=""> (e.g. cercircle, cycle) either se or ce for word-final /s/ after a lor vowel or consonant (e.g. loose, lace; spars scarce; dense, pence) possibly also in final position after a shot vowel (e.g. flars; of gas), and the long vowel ce.g. lass; of gas), and the long vowel ce.g. lass; of gas), and the long vowel ce.g. lass; of gas), and the long vowel ce.g. prism) z z optionally s in medial position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z z optionally s in medial position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z z sho in final position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z z laso in final position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z z sho in final position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z z sho in final position after a lor vowel (e.g. prise, prize) s in final <isimp< i=""> z after long vowels and consonants, and s after short vowel in lexical items (e.g. buzz, jazz) f sh ti after long vowels and consonants, and s after short vowels for /-[ar] as a noun for a process or object (orthographic -tian, -sial) s for /-[ar] as a noun for a process or object (orthographic -sian) s or z for /-[ar] as a noun (orthographic -sian) s or z for /-[</isimp<></isimp<></isimp<></isimp<></isimp<></isimp<></e,></e,>		k		
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vowel (e.g. account/acute)			сс	
perceived as a single grapheme; in fin position after short and weak vowels (oth than weak /1/) (e.g. prack, paddock) qu for the sequence /kw/ (e.g. frequent) for the sequence /kw/ (e.g. frequent) for the sequence /ks/ (e.g. axle), except in final unstressed syllable in a noun denotic study (e.g. electronics) g gg possibly gu before <e, i,="" y=""> (e.g. gue: guide, guy) gue in final position after long vowels (e. exist) n, ng</e,>				
position after short and weak vowels (oth than weak /1) (e.g. pack, paddock) for the sequence /ks/ (e.g. frequent) for the sequence /ks/ (e.g. axle), except in final unstressed syllable in a noun denotic study (e.g. electronics) g g g possibly gu before <e, i,="" y=""> (e.g. guet guide, guy) gue in final position after long vowels (e. exist) n, ng n before consonants; ng in final position (e.g. wink, wing) v v in final position (e.g. have) the the in final position (e.g. have) the the infinal position (e.g. breathe) s s optionally c before <e, i,="" y=""> (e.g. centrele, cycle) either se or ce for word -final /s/ after a long vowel or consonant (e.g. loose, lace; spars scarce; dense, pence) possibly ss or ce for word-final /s/ after weak vowel (e.g. lanses, palace) ss possibly also in final position after a she vowel (e.g. lass; cf gas), and the long vow perceived as <a> in Southern Englan Standard Pronunciation, e.g. pass after a word-initial weak vowel, optional sc before <e, i,="" y=""> (e.g. asset ascent/asylum) z z optionally s in medial position after a long vowel (e.g. prise, prize) s in final <ism> (e.g. prisen) zz also in final position after a long vowel (e.g. prise, prize) s in final <ism> (e.g. prisen) zz also in final position after a short vowel (e.g. prise, prize) s in final <ism> (e.g. buzzard, wizard, visit) zz also in final position after a short vowel (e.g. prise, prize) s in final <ism> (e.g. buzzard, wizard, visit) zz also in final position after a short vowel (e.g. prise, prize) s in final <ism> (e.g. buzzard, wizard, visit) zz also in final position after a short vowel (e.g. before /-al/ as a noun for a process or object (orthographic—tion, -ssio (orthographic—cian) ti or ci before /-al/ as an adjecti (orthographic—ion) s or z for /-3a/ as a noun (orthographic—suar) ge in final position (e.g. beige) tch after a short vowel in lexical items (e. statchel, match; but much) tafter a long vowel or a consonant for /- ti after a long vowel or a consonant for /- ti</ism></ism></ism></ism></ism></e,></e,></e,>			ck	as the doubled form after a short vowel
than weak /i/) (e.g. pack, paddock) for the sequence /ks/ (e.g. axle), except in final unstressed syllable in a noun denotic study (e.g. electronics) g g g possibly gu before <e, i,="" y=""> (e.g. guesguide, guy) gue in final position after long vowels (e.e.xist) n h, ng n before consonants; ng in final position (e.g. wink, wing) v v v ve in final position (e.g. have) the the in final position (e.g. have) the the infinal position (e.g. heave) b th the infinal position (e.g. heave) citler, eycle) either se or ce for word -final /s/ after a lon vowel or consonant (e.g. loose, lace; sparsscarce; dense, pence) possibly also in final position after a shot vowel (e.g. lass; cf gas), and the long vow perceived as </e,>				

	Basic	Doubled Special	
			adjective (orthographic –tual)
dз	j		optionally g before <e, i,="" y=""> in initial and medial positions (e.g. <i>gem</i>, <i>gin</i>, <i>gym</i>; <i>dungeon</i>, <i>rigid</i>)</e,>
			ge in final position after a long or weak vowel, or a consonant (e.g. <i>rage</i> , <i>marriage</i> , <i>range</i>)
			dg in medial position after a short vowel (e.g. <i>fidget</i>)
			dge in final position after a short vowel (e.g. <i>hedge</i>)
1	1	11	either le , el or al for syllabic /l/ and final /- əl/ (e.g. peddle, model, pedal; rabble, rebel (n), oval)
j	у		optionally unspelled before /u:, və, u/ (e.g. usual, Europe)
w	w		except after /k/ (= <qu>)</qu>

The vowels have a **basic form** for syllables in nonfinal position in a word, a **final form** for open syllables in word-final position where permissible, and, in some cases, a **special form** which presents the vowel phoneme in specific environments. Short vowels are given first, followed by long monophthongal and diphthongal vowels, the weak vowels, and special forms with preceding /w/. Table 2 should be read as: for the given phoneme x adult native speakers of English will use grapheme y (options y/z) in its basic or final form as required, except in specific environments when they will use either one grapheme or another (ie "optionally"), or may (ie "possibly") use an alternative.

Table 2: Phonemic-graphemic correspondence hypotheses for vowels in common words

	Basic	Final	Special	
I	i			
ε	e			
æ	a			
υ	0			
Λ	u		possibly o before <v> (e.g. cover, dove)</v>	
υ	00		u before /ʃ, l/ (e.g. <i>push</i> , <i>pull</i>)	
i:	ee/ea	ee/ea	i before final /ʒ/, and possibly before final /n/ (orthographic – ige, -ine)	
			possibly e before a single consonant (e.g. <i>completion</i>)	
a:	ar	ar	a before final /3/, and possibly before final /s/ (orthographic – age, -ass)	
			NB ar in non-final position must be followed by a consonant (e.g. barter)	
3:	er/ir/	er/ir/	possibly also ear and our in non-final position (e.g. <i>earth</i> , <i>journey</i>)	
	ur	ur	possibly eur as primary stress in final position (e.g. <i>chauffeur</i>)	
ə:	or/oar/ au/aw	or/oar/ ore/aw	NB au before a consonant only	
u:	oo/u	oo/ue	u.e in a final closed syllable (e.g. <i>rule</i>)	
(ju:)	ew/eu/ u/you	ew/ue	NB eu/u before a consonant only; u.e in a final closed syllable (e.g. <i>tune</i>)	

	Basic	Final	Special			
еі	ai/a	ay	ay before a vowel in medial			
Ci	ai/a	ay	position;			
			ai or a.e in a final closed			
			syllable (e.g. <i>gait</i> , <i>gate</i>)			
aı	i	y/ie	igh before /t/ (e.g. <i>light</i>); i.e in			
ai	1	y/IC	other final closed syllables (e.g.			
			line)			
OI .	oi	oy	oy before a vowel in medial			
	-	3	position			
ອບ	o/oa	o/oe/ ow	o, oa or o.e in a final closed			
			syllable (e.g. post, moat, mote)			
aυ	ou/ow	ow	ow before a vowel in medial			
			position			
ıə	ear/eer	ear/eer/				
		ere				
εэ	air/ar	air/are	possibly aire as primary stress			
			in final position (e.g. solitaire)			
			NB air/ar in non-final position			
			must be followed by a vowel			
			(e.g. wary)			
ບອ	oor/our	oor/our/				
(jʊə)		ure				
i	i/e	y/ey	ie before perceived inflection			
			(e.g. berries; buries)			
			possibly ie after a <k> in final</k>			
			position (e.g. bookie)			
I	i/e		(NB word-initial <ex->)</ex->			
(weak)						
(j)u	u					
э	a/e/o/	a/er/re/				
	u/ou	or/ure				
WΛ	wo		(e.g. won, wonder, worry, but			
			swum, swung)			
w3:	wor	were	(e.g. work, world; when			
			preceded by /k/: quir (e.g.			
			squirt)			
wɒ	wa		(e.g. want, wander; when			
			preceded by /k/: qua (e.g.			
			quality)			
wo:	war/ wor		(e.g. warn/worn; war/wore;			
		wore	when preceded by /k/:			
			quar/quor (e.g. quart, quorum)			

Technical words

Consonants have a much simpler set of phonemic-graphemic correspondences in technical words. Since doubled forms rarely occur, it is hypothesized that as soon as they perceive a word to be technical, they will disregard that 'option'. Consonants have a **basic form**; in some cases, there is an **alternative form** (labelled below as 'Alt.'); and also a **special form** which represents the consonant in specific environments. Table 3 should be read in a similar way as above.

Table 3: Phonemic-graphemic correspondence hypotheses for consonants in technical words

	Basic		Special
р	p		
b	b		
t	t		
d	d		
g	g		
m	m		
n	n		
ŋ	n		before /k, g/ only
f	f	ph	

	Basic	Alt.	Special			
v	v					
θ	th					
h	-					
_	h		ontionally c before <e i="" th="" v<=""></e>			
S	S		optionally c before < e , i , y >			
			possibly tz for the sequence /ts/			
Z	Z		optionally x in initial position			
_			optionally s in medial position			
l	l		possibly ll after a short vowel (e.g. callisthenics)			
r	r	rh	possibly rr or rrh after a short or weak vowel			
			(e.g. diarrhoea)			
k	С	k	before <a, o,="" u=""> and <l, r="">; k in initial position</l,></a,>			
			(e.g. kaolin)			
	ch	k	before <e, i,="" y=""> and optionally <l, r="">; k in</l,></e,>			
			initial position (e.g. kerosene)			
			possibly cc or cch after a short vowel in medial			
			position (e.g. saccharine)			
			qu for the sequence /kw/			
			x for the sequence /ks/; possibly cc before <e,< th=""></e,<>			
			i, y> in medial position			
			cs for the sequence /ks/ in a final unstressed			
			syllable in a noun denoting study			
ſ			ti after long vowels and consonants, and ssi			
3			after short vowels for /-ʃən/ as a noun for a			
			process or object (orthographic -tion, -ssion)			
			ci for /-\fontarrow as a noun for a profession			
			(orthographic –cian)			
			ti or ci before /-əl/ as an adjective			
			(orthographic –tial, -cial)			
			ss for /- fə/ as a noun for a process or object			
			(orthographic –ure)			
			possibly x for /kʃ/ before /u/			
3			si for /-ʒən/ (orthographic –sion)			
			s or z for /-32/ as a noun (orthographic -sure, -			
			zure)			
			s before /-uəl/ as an adjective (orthographic –			
			sual)			
			ge in final position after a long vowel (e.g.			
			triage)			
ţſ			t after a long vowel or a consonant for /-tsə/			
			(orthographic <i>-ture</i>)			
			also as /-uəl/ as an adjective (orthographic –			
			tual)			
d3			g before <e, i,="" y=""> in initial and medial positions</e,>			
			j before <a, o,="" u=""> (e.g. <i>conjunctivitis</i>)</a,>			
			d as /-uəl/ as an adjective (orthographic -dual)			
i			unspelled before /u:, və, u/ (e.g. urology)			
J	1		(0.5. w/ (0.5.))			

The vowels have a **basic form** without distinctions for open final syllables; in some cases, they also have an **alternative form**; and also a **special form** which represents the vowel in specific environments. Table 4 follows the pattern for vowels above, except that no special provision is needed for vowels following /w/.

Table 4: Phonemic-graphemic correspondence hypotheses for vowels in technical words

	Basic	Alt.	Special		
I	i	y	possibly e in 'ex'		
ε	e				
æ	a				
υ	0		a following /kw/ (orthographic qua-)		
Λ	u				
i:	e		e.e in a final closed syllable		
			i possibly before final /n/		
			(orthographic -ine)		

	Basic	Alt.	Special	
a:	ar			
3:	ur	er/ir		
o:	au	or		
u:	u		u.e in a final closed syllable	
(ju:)	u	eu	u.e in a final closed syllable	
еі	a		a.e in a final closed syllable	
aı	i	y	i.e/y.e in a final closed syllable	
OI	oi		oy before a vowel in medial position	
ອບ	0		o.e in a final closed syllable	
ιə	er		the <r> must be followed by a vowel;</r>	
			possibly ia or ea in final position	
eэ	ar/er	aer/ear	the <r> must be followed by a vowel</r>	
ບອ	ur		the <r> must be followed by a vowel;</r>	
			possibly ua in final position	
(jʊə)	ur	eur	the <r> must be followed by a vowel;</r>	
			possibly ua in final position	
i	i	e	(before a vowel) \mathbf{y} in final position	
I	i	e	(before a consonant)	
(weak)				
(j)u	u			
э	a/e/o/		a/er/re in final position	

The hypotheses for technical words are a good deal simpler than for common words. Common words require 71 predictions, options and possibilities for consonants, and 67 for vowels; technical words, on the other hand, require just 48 predictions, options and possibilities for consonants, and 47 for vowels. This comprehensive set of hypotheses highlights the magnitude of the complexity of phonemicgraphemic correspondences that, we claim, are contained in the mind of adult native speakers of English. Now, to test the claim.

Experiment

An experimental mechanism to test all 233 hypotheses would clearly become unwieldy, even though a number of hypotheses could be tested within a single novel 'word'. We decided that 50 'words' would suffice to contain enough representative hypotheses and not overtax participants. A pilot study proved to be an invaluable resource for the design of the experiment proper. It helped

- to define more precisely the procedure for conducting the experiment, including the request for 'qualitative data';
- to construct items that could realistically be regarded as 'English', e.g. to eliminate sequences that were not typical of English, like /mu:sk/ with a long vowel before final /-sk/ (apart from the distinctive Southern England pronunciation of ask , etc);
- to eliminate items that were too similar to taboo words for comfort;
- to eliminate items that could be spelt as existing words;
- to expect 'legitimate' alternative spellings;
- to exclude items as unnecessary for further investigation because of total agreement, e.g. /lʌs/ as <luss>, /kɛdək/ with <dd>, etc;
- to give experience for the timing of the list of items; it gave us confidence that a list of 50 items

- would not in fact be too onerous it took less than 20 minutes to complete;
- to confirm a decision to use two speakers, one for the 'common' words (PT) and one for the technical words (BC), but without indicating to the subjects why; it helped us to talk about "PT's words" and "BC's words" without reference to there being any difference in the nature of the words themselves:
- to confirm our suspicions that some grammatical information is occasionally necessary, e.g. final /d/ as a past participle marker, or not;
- to require information on any recognized linguistic disorder in any participant, e.g. dyslexia;
- and to decide to audio record the dictation of items as a checking mechanism for consistency.

A new set of 50 items was presented to 45 participants, native English-speaking students with a narrow age range (19-23 years), similar cultural background and level of education, who remained anonymous but were required to indicate their gender, regional background in terms of accent, and any linguistic disorder. The nature and purpose of the experiment was explained: research into the links between the sounds of words and their spelling and in the processes that take place in the mind in deciding how to spell a novel word. "All we want you to do is to write down on the sheet of paper in front of you the most likely spelling for each of the 50 words which you will hear. This is **not** testing you in any way, and there is no right or wrong answer here, but your responses will help us to test these hypotheses".

They were also encouraged to write alternative spellings. They were also encouraged to use their best print form of handwriting. They were also invited to provide comments on the way they made their decisions. They were provided with a sheet with numbers 1 to 50, and with space at the bottom for their comments; the design of the sheet was to expedite our own analysis.

The 50 words appear in Table 5. The first 35 were dictated by PT, and the final 15 by BC, as in the pilot. The very first 15 were said to be verbs, and as a reminder of this, occasionally an item was presented as to ..., but they were designed to especially test the spelling of vowels in final open syllables The following 10 were said to be nouns, and occasionally were presented as a ..., but they were designed to especially test vowels in closed syllables. These first 25 items, naturally, also provided opportunities to test consonant hypotheses. Numbers 25 to 35 were said to be adjectives, and were occasionally presented in the form they were really/very/pretty..., but were designed to test a variety of consonant and vowel hypotheses. The final 15, dictated by BC, were designed to sound technical. All were delivered as closely as possible to a Southern England Standard Pronunciation.

In order to save space, we also present our expectations from the hypotheses, and an analysis of the

participants' responses. Only significant percentages are given; hence, not all responses amount to 100%. (RVG took responsibility for 1-35; BC for 36-50.)

Table 5: Test items, expectations and responses

		Expectation	Responses
1.	kli:	Clee	c 70.4; k 29.6 ee 78; ea
		/clea	19.2
2.	rı'pa:	Repar	e 97.8 ar 87.2; are 10.5
3.	bəˈlɔ:	Belor /-oar/-ore/-aw	e 98.9 ore 65.6; or 13.3; aw 6.7; our 5.6
4.	kən'vju:	Convue	o 100 (i)ew 63.3; ue
''	liell 'Jul	/-view	33.3
5.	drao	Drow	ow 65.5; ough 17.2
6.	vei	Vay	52.3; ey 23.8; eigh 8.3
_	1.	ay	50 221 551
7.	рəˈtrɜ:	Pertrer /-ir/-ur	e 59; a 23.1; or 7.7 er 28.2; ur 16.7; eur 16.7;
		/- <i>ur</i>	28.2, ur 10.7, eur 10.7, ure 7.7
8.	kaı	Kie	k 87.3 ai 53.6; ie 10; ye
			10; ay 9.2; igh 4.6
		letter rule)	
9.	foi	Foy	oy 51.1; oi 30.7; oye
10	raıə	Rire	13.6 yer 23.2; ier 12.2; ya
10.	Tate	Kire	8.5; ior 7.3; ia 4.9
11.	trəʊ	Tro	ow 62.5; o 11.4; ough
		/-0e/-ow	11.4; ou 8; owe 4.5; oe
10	-1	4	3.4
12.	ə'nıə	Anear	a 45.2; e 42.9 n 88.9; nn 8.9 ear 63.1; eer
		/ 41111-/ - 661/ - 616	29.8
13.	bə'djuə	Bedure	ure 34.5; uer 22.6; ewer
			15.5; ua 8.3; uar 6
	rauə	Rower	ow 56.8; aw 19.3
15.	əˈmɛə	Amare /amm-/-air	a 72; e 24.4 m 95.6; mm 4.4 are 31.7; air
		/amm-/-air	17.1; ayer 15.9; ere
			12.2; aire 6.1
16.	klaıt	Clight	k 52.6; c 42.9 igh 38.4;
		/clite	i.e 30.2; ai 9.3; eigh 7
17.	gleit	Glait	a.e 69.3; ai 9.1; ai.e 8;
18	'kwɒtɪə	/glate Quattier	eigh 6.8 qu 90.5 qua 66.7; quo
10.	KWBtie	/-ia	21.4; qu/coi 7.1 t 84.4;
			tt 15.6 ier 82.1; ia 6
19.	ˈsi:nɪŋ	Seening	s 64.8; sc 22.7; c 12.5
		/sea-/sce-	ee 64.8; e 15.5; ei
20	'ju:flɪks	Youflix	11.4;ea 8 ng 97.8 u 43.9; eu 29.2; yu/ou
20.	Ju.IIIKS	/uflix/-cks/-cs	24.4 x 89; cks 11
21.	t∫ΛV	Chove	chuv 84.4; chove 6.7;
			chuve 4.4
22.		Udd	udd 73.3; ud 22.2
23.	ˈhæzədʒ	Hazage	z 51.3; s 42.5 age 41.3;
		/-S-	udge 18.8; uge 10; arge 7.5
24.	ıgˈzɜ:st∫ə	Exersture	ex 85 er 59; ur 40 ture
	8 9	/-ir-/-ur-	52.5; ti 31.25
25.	ə peɪʒəˈnɛə	Apasionaire	a 94.9 p 76.7; pp 23.3
		/app-	a 55.1; ai 38.5; ay 5.1
			ge/i 42.3; si 25.6; ga/o 9; j 7.7; ti 7.7 aire
			73.1; <i>air</i> 14.1; <i>are</i> 6.4
26.	"fræki	Fracky	ck 76.5; k 9.1; kk 8 y
		/-ey	64.8; ie 20.5; ey 11.4
27.	"lɔ:kɪ∫	Laukish	or 60.2; aw 24; au 8 k
		/law-/lor-	95.4 ish 97.7
Щ		Лoar-	

_		Expectation	Responses
28.	ˈsʌktʃuəl	Suctual	c 68.3; ck 20.2 tual
			95.5
29.	'gærən	Garren	rr 78.9; r 18.9 e 52.3; c
			20.9; o 20.9
30.	"praʊnə	Prouner	ow 72.7; ou 19.3 en
		/prow-	86.4; <i>a</i> 13.6
31.	"kɒ∫ənət	Cossionate	c 72.8; k 27.2 sh 86.4
			ssi 3.7 -e- 35.8; -i-
			25.9; -io- 17.3; -o- 8.6; -
			<i>u</i> - 6.2 <i>ate</i> 61.7; <i>et</i> 17.3
22	brəuð	Brothe	ut 7.4; at 6.2 e 46.7; ow(e) 26.5
32.	01900	/-oa- o	oa(e) 11.9; oue 5.7
		7-04-0	the 58.4; th 32.6
33	dσp	Doop	dup 68.5; dupp 11.2
	ССР	2 cop	doop 9; doup 5.6
34.	"dʒɪpəl	Jipple	$j 69.3; g(i/y) 30.7 \mid pp$
	-0-F	/g-/-el/-al	90; <i>p</i> 10 <i>le</i> 92; <i>el</i> 3.3
35.	wəυθ	Woth	o(e) 42; oa(e) 39.8
		/-oa-	ow(e) 12.5; ou 5.7 th
			75; the 25
36.	flıdʒ (verb)	Flidge	f 100 dge 100
		/ph-	
37.	"haɪdrʌm	Hidrum	hy 74.4; high 14.4; hie
	(adjective)	/hy-/-am	5.6; <i>hi</i> 4.4 <i>u</i> 90; <i>a</i> 8.9
38.	ˈeɪzəpri:n	Asaprine	a 82.2; ai 10; ay 6.7 z
	(noun)	/az-/-prene	50; s 47.8 -a- 55.6; -u-
			12.2; -e- 11.1; -ia- 6.7
			een 39.5; ine 36.8; ene
30	so:ˈkeɪʃən	Saucation	23.7 or 34.3; aw 30; au 26.7;
39.		saucanon /sor-	ore 6.7 c 97.8 a 97.8
	process)	17307-	tion 86.7; sion 8.9
40.	daı'lʌkʃuəs	Diluxuous	di 84.4; dy 11.1 u 97.8
	(adjective)	/dy-	x 48.6; ct 48.6 u 71.1;
	()		17.8 ous 100
41.	'vəisəuklaid	Voisoclide	oi 95.6 voiceo- 46.7
	(noun)	/-yde	voico- 33.3; voiso- 26.7
			yde 40; ide/ite 37.8
42.	nu:ˈmɛt∫ə	Numeture	u 68.9; eu 15.6; ew 15.6
	(adjective)	/neu-	ture 52.2; tua 8.9; tuei
			5.6
43.	"zıərɒks	Zerox	z- 63.3; x- 36.7 e 85.6
4.4	(noun)	/x-	-x 97.8
44.	ru: 'mætsəid	Rumatsoid	r 68.9; rh 31.1 u 62.2
	(noun)	/rh-/-eu-/-tz-	eu 28.9 tz 58.9; ts 32.2
15	zor'lndares	7iloginous	oid 93.3
4J.	zaı'lɒdʒɪnəs (adjective)	Ziloginous /x-/zy-/xy-/-ge	z 57.8; x 42.2 y 80; i 15.6 ge/i 80; dge/i 11.1
	(adjective)	12-12y-12y-1-ge	e 60; i 22.2; u 8.9; ic
			4.4 ous 84.4; us 4.4
46.	glıθı'rəıtıks	Glithiroitics	ace 2.2
46.	glıθıˈrɔɪtɪks (noun)		
46.		Glithiroitics /gly-/-ix	ace 2.2 gli 56.7; gly 43.3 thi
	(noun)		ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5
	(noun) krɔitiˈlaitəs	/gly-/-ix Croitilitis	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o
	(noun)	/gly-/-ix	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o 47.7; oy 41.1 ti 80; te
	(noun) krɔitiˈlaitəs	/gly-/-ix Croitilitis	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o. 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us
47.	kroiti laitəs (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o 47.7; oy 41.1 ti 80; to 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2
47.	krɔitiˈlaitəs (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o 47.7; oy 41.1 ti 80; to 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh
47.	kroiti laitəs (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics /thy-/-la-/-le-/-	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh 8.9 lo 46.7; li 22.2; le
47.	krɔitiˈlaitəs (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 o 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh 8.9 lo 46.7; li 22.2; le 17.8; le 13.3 gi 73.3; gy
47.	krɔitiˈlaitəs (noun) θailəˈdʒiliks	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics /thy-/-la-/-le-/-	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 oi 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh 8.9 lo 46.7; li 22.2; le 17.8; le 13.3 gi 73.3; gy 11.1; ji 6.7 ics 44.4; ix
47.	krɔitiˈlaitəs (noun) θailəˈdʒiliks (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics /thy-/-la-/-le-/-gy-/-ix	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 oi 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh 8.9 lo 46.7; li 22.2; le 17.8; le 13.3 gi 73.3; gy 11.1; ji 6.7 ics 44.4; is 42.2; icks 8.9
47.	krɔitiˈlaitəs (noun) θailəˈdʒiliks (noun)	/gly-/-ix Croitilitis /chr-/-ly-/-tus Thilogilics /thy-/-la-/-le-/-	ace 2.2 gli 56.7; gly 43.3 th 42.2; thy 26.7; the 22.2 oi 65.6; oy 18.9 ix 58.8 ics 28.9; ex 6.7; icks 5.5 c 72.7; k 21.2; ch 6.1 oi 47.7; oy 41.1 ti 80; te 11.1 li 73.3; ly 20 us 44.4; is 33.3; ous 22.2 thy 74.4; thi 14.4; thigh 8.9 lo 46.7; li 22.2; lo 17.8; le 13.3 gi 73.3; gy 11.1; ji 6.7 ics 44.4; ix

		Expectation	Responses
			<i>e</i> - 27.8; - <i>a</i> - 20 <i>r</i> 93.3;
			rh 6.7 ia 56.7; ea 22.2;
			eia 6.7
50.	"dʒɛərɔɪˈsɛtəli:n	Geroisetaline	ger 76.7; jer 10 roi
	(noun)	/gear-/oice-/-	36.7; roy 33.3; ro 21.1
		te-/-to-/-ene	s 61.1; c 31.1 ta 62.2; to
			15.6; te 15.6 ine 80;
			ene 13.3

The experiment was conducted in a single session; thus each participant heard exactly what the others heard. Six participants wrote the first item as *clean*; an independent judge inspected the audio recording and declared that no /n/ was discernible. We assume that these six participants had not yet adjusted themselves to 'transcribing' items that they were told were not real. These six responses were excluded from the analysis of the first item.

Participants heard each item twice at least, and, in some cases, three or four times, upon request. We had explained that the experiment was not a test situation; we wished for maximum attention. It was clear from the participants' behaviour that they rehearsed each item silently to themselves in order to reinforce the aural impression before they committed themselves to the task of spelling. In doing so, it is inevitable that they would interpret the item in terms of their own phonological system or accent; for example, it is clear that many - if not all - interpreted the first syllable of 42 as /nju:/ rather than /nu:/. They then, again inevitably, spell out their own mental version of the item. From the qualitative data, it is clear that two main strategies emerged. First, they matched their mental versions with lexical and grammatical elements that were already stored in their minds, e.g. prefixes like re-(2), be- (3, 13), con- (4), suffixes like -ing (19), -ish (27), -ous (40, 45), -oid (44), lexical elements like view/-vue (4), and for a few high (37). Second, they matched phonemes and phoneme sequences to their store of graphemes. After spelling an item, it is also clear that they sometimes reviewed their attempt if they perceived alternatives and/or improvements or wished to avoid a spelling that already existed in the language. For instance, one participant revised their attempt at 16, from <cliet> to <clite>; another recognized their attempt at 14 as rougher, which already exists, and revised it to <rower>, probably not realizing that they had opted for another potential homograph!

Concluding remarks

The responses in the experiment clearly demonstrate that these young adults do operate a series of systems of orthography for managing the spelling of novel items that conform to regular patterns of word phonology in English. There was not a single nil response in the 2,250 items of data; only very occasionally was there a partial or a confused attempt. Adults certainly do appear to have orthographic potential in their minds which they can readily apply.

Evidence for the general hypotheses has been furnished, except that G8 was not tested. G6 was tested

by item 22; only 23.3% produced a two letter spelling for this word presented as a noun: 76.7% reproduced the 'three letter rule', principally as <udd>, but also as <udd>, but also as <udd>, the vast majority of the 233 phonemic-graphemic hypotheses were proved, but not all of them, and these exceptions require a little thought.

21 /tʃʌv/. Final /v/ is almost invariably spelled <ve> in Standard English; parallel words include shove, dove, love, glove, above, cover, covet, govern, oven, slovenly – assumed to be enough guidance. But not to these students, who overwhelmingly chose <chuv>. The basis for their choice appears to be informal spellings like spiv, guv, rev(s), and probably most importantly chav. Hypotheses G2 and v in common words will need reconsideration, certainly for the younger generation.

18 /"kwptiə/. /t/ following a short vowel is almost invariably spelled <tt>. Perhaps this item sounded rather like a word of classical origin, or indeed a foreign loan word, in which the doubled consonant is not expected. There were three responses that reflected French spelling, including <coitieur>.

8 /kai/. *Kai* was offered 53.6%, no doubt with certain celebrities in mind to the younger generation! <kigh> seems as reasonable as the expected <kie, kye>; the /al/ hypothesis needs reconsideration.

Initial /k/, other than for 8 /kai/. The **c** hypotheses need reconsideration, since <k> appeared before <l> (1, 16), before <o> (31) and before <r> (47) quite extensively. Perhaps again, a difference between the generations, with the younger more disposed to <k> as a result of exposure to popular brand names.

Space does not permit consideration of other exceptions and the details of alternatives; they will have to await another opportunity. But what we have established is that just as it is possible to investigate and describe the phonological systems that a person operates, it is also possible to investigate and describe the orthographical systems, including the paradigm shift in spelling what are perceived to belong to the technical register. The study therefore completes Aitchison's Words in the Mind, contributes a much more comprehensive set of phonemic-graphemic correspondences than van Berkel (2005) for second language research, extends Kress's study into young adulthood, matching Halliday's Learning how to Mean, and provides evidence of literate competence in any culture.

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Global capitalism and change in Higher Education: dialectics of language and practice, technology, ideology

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This paper originated in an invitation, and a puzzle. The invitation was to give a plenary paper at the 2007 annual meeting of BAAL (British Association for Applied Linguistics), the puzzle was the conference theme, 'Technology, ideology and practice in Applied Linguistics'. BAAL has long been associated with a broad and inclusive understanding of Applied Linguistics, so I had no difficulty in seeing the sort of work I do as potentially relevant. The puzzle was what might have been intended, and what might be meant, by conjoining the three terms 'technology', 'ideology' and 'practice' with each other and implicitly with 'language'. I quickly gave up speculating what might have been intended, though I did at one point ask Alan Davies. In any case, what is actually made of conference themes on the day, especially broad-ranging and relatively open ones, tends to leave intended meanings behind. I began from the apparent paradox that while each of these terms (and categories) construes a particular facet of the social process, and while these four facets would seem to be genuinely different and none of them would seem to be reducible to others, they are far from being discrete, for when I think about any one of them theoretically and in terms of analysis, it would seem that each of the others sooner or later need to be brought in. Take for instance the category which would seem to have the widest purchase with respect to the social process, 'practice', which in its most general sense subsumes human 'doing' as such. Practice includes and sometimes virtually amounts to language, technologies are specialized forms of practice, and practice sometimes has an ideological character (of the four categories, 'ideology' is the only one that can be reasonably though not in my view rightly – dispensed with).

My aim in the paper is to discuss how relations between these categories can be theoretically conceived and analytically addressed within the approach to critical discourse analysis which I have been developing in recent research (Fairclough 2003, 2006), whose objective is to use critical discourse analysis to give a semiotic focus in social research. 'Semiosis' means here signification or meaning-making as a facet of the social process. 'Discourse' is generally used in this sense as well as others, and it is partly to avoid common confusions between different senses of 'discourse' that I prefer 'semiosis'. The general epistemological stance can be characterized as methodological relationalism (Jessop forthcoming), which is based upon the ontological claim that relations are prior to objects or individuals (Harvey 1996), and there is a more specific commitment to a critical realist

philosophy of social science (Fairclough, Jessop & Sayer 2004). The focus for theory and analysis is not on semiosis as such, but on the relations between semiotic and other elements of the social process, including semiotic dimensions of the social construction of social life. These relations are viewed as dialectical, which allows us to address the apparent paradox I referred to above. Ontologically, the social process is conceived as relations between different but non-discrete 'moments' which 'internalize' other moments (a dialectical relation, Harvey 2006). Methodologically, research is necessarily interdisciplinary, and one of a number of possible 'points of entry' into interdisciplinary research is the semiotic point of entry, which focuses on dialectical relations between semiotic and other moments (cognitive and psychological, social and institutional, and material). I shall approach the question of dialectical relations between semiosis, practice, technology and ideology historically, discussing these relations first in transhistorical terms, then in relation to modern societies, and finally in relation to contemporary societies. To concretize and particularize a rather abstract theoretical presentation, I refer in the final part of the paper to dialectical relations between semiosis, practice, technology and ideology in contemporary changes in Higher Education (HE), with Britain particularly in mind, although contemporary trajectories of change clearly have a partly transnational character.

The paper in outline proceeds as follows. First, I give an initial illustration of the direction I am taking in the form of comments on an extract from Rose (1999), dealing with 'enterprise' in Britain in the 1980s. Second, I offer initial working understandings of the key categories: practice, technology, ideology. Third, I give a transhistorical account of 'the dialectics of discourse' (Harvey 1996), dialectical relations between semiosis and other social elements. I then turn (fourth) to modern societies, discussing first cultural political as one appropriate interdisciplinary methodology for addressing the matters at issue, then the dialectics of semiosis and practice, technology and ideology in modern societies. I then move (fifth) to a discussion of contemporary social formations particularly in terms of global capitalism as a way into to my (necessarily somewhat schematic) analysis of the dialectics of semiosis, practice, technology and ideology in recent changes in HE.

Initial illustration

To give a preliminary indication of how I will approach these dialectical relations, let me briefly comment on a text which I think can be fruitfully interpreted in terms of (or 'translated' into) the position which I shall develop below, a short extract from Rose (1999) in which he discusses 'enterprise' in Britain in the 1980s:

the notion of enterprise underpinned an abstract political critique of bureaucracy .. but was also translated into a variety of specific strategies for reforming economic policy ... reorganizing hospitals and universities, transforming the pedagogic programmes of schools.

Translation links the general to the particular, links one place to another, shifts a way of thinking from a political centre ... to a multitude of workplaces, hospital wards, classrooms ... Thus national programmes of government can render themselves consonant with the proliferation of procedures for the conduct of conduct at a molecular level across a territory.

First, the 'notion of enterprise' is in semiotic terms a discourse, and the semiotic moment of a general strategy for social change which is 'translated' into the 'specific strategies' Rose refers to. Second, although Rose does not go into the question, this discourse might I think be shown though analysis to be an ideological discourse, understanding ideology in the way I propose below. Thirdly, Rose's 'translation' conflates two categories of critical discourse analysis (Fairclough 2003, 2006): recontextualization (of discourses) in diverse social fields (e.g. work, health, education, Bourdieu & Wacquant 1992) and at diverse scales (Jessop 2002) of social action (national, local, global etc), and operationalization of discourses ('putting them into practice') in diverse social practices. Fourthly, changed practices are constituted through technologies including the human technologies which Rose himself discusses, in his terms 'procedures for the conduct of conduct ... imbued with aspirations for the shaping of conduct'. I have taken liberties with Rose's text, but while my own 'translation' goes against the letter of his analysis I don't think it travesties the spirit.

Practice, technology and ideology

I understand practice as social practice broadly in Wenger's sense (1998): 'The concept of practice connotes doing, but not just doing in and of itself. It is doing in a historical and social context that gives structure and meaning to what we do ... practice is always social practice.' There is a common ambivalence associated with practice which can be seen as implicit here: it is all the diverse concrete instances of doing, but also socially constituted and sometimes institutionalized ways of doing, and the former are conditioned (though not determined) by the latter. Furthermore, practice can be seen as a level of the social process which is neither as abstract as structure nor as concrete as action/events, which mediates the relationship between structure and action/events. There are various modes of practice, including 'lay' or 'lifeworld' practice, professional and expert practice, and theoretical practice (Chouliaraki & Fairclough 1999). Semiosis is a moment of practice: doing and ways of doing are partly semiotic, and practice is reflexive - people do, and they construe (including theorize) what they do.

Technology 'originated as prosthetic aids for the human organs or as physiological systems whose function is to receive data or condition the context. They follow a principle of optimal performance: maximising output and minimizing input. Technology is therefore a game pertaining to ... efficiency' (Lyotard 1984). A

definition appropriate for modern societies is 'use of scientific knowledge to specify ways of doing things in a reproducible manner' (Brooks 1971, Castells 2000), with the proviso that technology has only been properly science-based since the mid 19 century. Contemporary technologies include of course ICTs (print, radio, TV, internet) but also increasingly 'human technologies' 'technologies of governance' (Rose 1999), 'social technologies'. A social technology 'has its origins in the social sciences, and although it may incorporate some material artifacts such as computers, ultimately its purpose is to produce changes in human behaviour; in the case of clinical budgeting' (the concern of their paper) 'the behaviour of clinicians' (Pinch, Ashmore & Mulkay 1997). Or audited self-assessment in quality assurance systems (in for instance HE).

Thompson (1984) glosses *ideology* as 'meaning in the service of power', in my terms a dialectical relation between semiosis and relations of domination. In viewing ideology as an aspect or modality of power relations, this belongs broadly in the family of critical views of ideology, as opposed to non-critical and often relativist views (Eagleton 1991). Ideology is a historical category specifically applying to class societies and associated with their need for legitimacy (Habermas 1976). I shall give a somewhat fuller critical account of ideology below in discussing modern societies. We can say (indeed, confess) that ideology is much used in a 'lazy' way, but claims about ideology actually need to be supported through complex analysis.

Transhistorical formulation of 'the dialectics of discourse'

What Harvey (2006) calls the 'dialectics of discourse', dialectical relations between semiosis and other elements or moments of the social process, is a transhistorical aspect of human societies, ie not tied to any specific historical epoch. We might formulate it in a very general way as follows:

- Semiosis, social practice and materiality are different moments of the social process
- Dialectical relations obtain between these moments, which are different but not discrete, which internalize and are internalized in each other.

This abstract trans-historical formulation needs to be elaborated in specific ways for different and historically specific social formations.

Social practice subsumes social (inter)action in all its historically and spatially variable forms, and the moments differentiated by Harvey (1996):

- Social relations
- Power
- Beliefs/values/attitudes
- Institutions/rituals

Social practice internalizes material moments (e.g. in dialectical relations between power and property, institutions/rituals and tools, techniques, technologies), and semiotic moments (e.g. in dialectical relations

between beliefs and discourses, institutions and genres, power and ideologies).

Semiosis is meaning-making, drawing on semiotic systems (languages, orders of discourse, codes for visual semiosis etc). It internalizes material moments, though in complex ways which cannot be reduced to crude theories of 'reflection'. For instance, in the face of the proliferation of discourses, it would seem that particular lexicons (lexical aspects of particular discourses) will tend to be selected and retained (whereas others are not) for their 'practical adequacy' (Sayer 2000) in so far as they are shaped by the material world, non-deterministically but also nonarbitrarily related to it, ie in so far as they construe it in practically adequate ways (such that, for instance, acting on the basis of them leads to outcomes they would seem to predict). Semiosis also internalizes social moments: what are identified in critical discourse analysis as 'orders of discourse' (Fairclough 1992, 2003, 2006) can be understood as forms of the social structuring of semiotic variation.

Finally with respect to *materiality*, we may say that the material world internalizes social practice and semiosis – it is in part socially and semiotically constituted.

Modern societies: Methodology

I shall begin my discussion of modern societies by briefly describing one framework (by no means the only available or conceivable one) which I have found useful for interdisciplinary research: *cultural political economy* (CPE, Jessop & Sum 2001, Jessop 2004, Fairclough 2006). This is appropriate for researching modern (and contemporary) societies, for instance in its capacity to deal with the separation out of economic, political, social and cultural systems, fields and institutions, and the complex interconnections between them.

The version of CPE which I have used, developed by colleagues in Sociology and Politics at Lancaster University, is a synthesis of three main elements (Jessop 2004), which I shall just name without going into: a 'regulation approach' to political economy, a Gramscian state theory, and critical discourse analysis. It builds upon but goes beyond older forms of political economy through researching economies as not only politically and socially but also culturally and semiotically conditioned and embedded. The 'cultural turn' in political economy is presented by Jessop as ontological as well as methodological: for instance, economic 'objects' (an example would be the now widely heralded 'knowledge-based economy') are regarded as having a semiotic character, and as constituted through and as 'economic imaginaries' (Jessop 2004, forthcoming b, Castoriadis 1975). This version of CPE incorporates Jessop's structuralrelational approach (Jessop forthcoming a) with its focus on relations between structures and strategies, both of which have semiotic dimensions. Thus discourses and narratives are an irreducible moment of strategies, which are necessarily selective and reductive with respect to the extreme complexity of, for instance,

real economies – hence the view that economic strategies semiotically incorporate economic imaginaries.

A distinction is necessary between the semiotic construal and construction of aspects of the world (Sayer 2000): not all construals have constructive effects, and whether or not they do depends upon sets of conditions some of which are non-semiotic. Semiosis is viewed as both causally effective (subject to such conditions) and meaningful, though this requires a 'non-Humean' view of causality which differentiates it from regularity (Fairclough, Jessop & Sayer 2004). The contingency of constructive effect of semiosis is addressed in terms of the variation, selection, retention of discourses (Jessop 2004): discourses proliferate (vary), some are (e.g. institutionally) selected (subject to material, social, semiotic conditions), and some are retained through processes of recontextualization and operationalization which enable constructive effects. Recontextualization is understood as the structural and scalar dissemination of discourses, a dialectic of colonization-appropriation (Chouliaraki & Fairclough 1999), operationalization as comprising the enactment of discourses in ways of (inter)acting (and genres), their inculcation in ways of being/identities (and styles), and their materialization in the material (physical) world. For instance, the discourse of the 'knowledge-based economy' was one of many discourses which emerged in the wake of the crisis of economic 'Fordism' as would-be imaginaries for a 'post-Fordist' economy, it has tended to be selected over others on the basis of a range of factors (the degree to which it encapsulates real emergent features of economies, its applicability to a wide range of sectors, fields, scales and differing national economies, the speed with which it has been adopted and promoted by powerful agencies and institutions), and its retention has been secured by extensive recontextualization and effective operationalization (including for instance enactment in new practices in Higher education). See Jessop forthcoming b.

Modern societies: Dialectics of practice, technology, ideology and semiosis

Anything like a full account of this complex of dialectical relations is well beyond the scope of this paper, and I shall limit myself to indicating a line of approach by commenting on a number of relations within the complex.

Practice and semiosis

Practice has a semiotic moment, dialectically related to others. At the level of concrete doing, concrete actions and events, *text* is the semiotic moment of practice, using text in an extended sense to include not only written text but also speech and the various 'multimodal' types of text (combining language with other semiotic modes including visual image) in print, television and internet. At the level of socially constituted ways of doing, *orders of discourse* are the semiotic moment of (networks of) social practices, for instance the network of social practices which

constitutes contemporary HE. Orders of discourse themselves are constituted as relatively stable articulations of genres, of discourses, and of styles, ie semiotic ways of interacting, of construing, and of being (identity).

Practice and (networks of) social practices are moreover semiotically construed and these construals can be stabilized as ways of construing, discourses and associated semiotic imaginaries, which can contingently (subject to certain conditions) be operationalized and have constructive effects (e.g. construals/discourses of Higher Education as markets), and be disseminated across structural and scalar boundaries through processes of recontextualization.

Technology and society

Mumford (1934) notes 'while that technics undoubtedly owes an honest debt to capitalism, as it does likewise to war, it was nevertheless unfortunate that the machine was conditioned ... by these foreign institutions and took on characteristics that had nothing essentially to do with technical processes and the forms of work'. (Mumford 1934). Feenberg (1999) conceives the relation between technology and society as 'primary' and 'secondary instrumentalization': the technical development of a function requires abstracting it from the social process, decontextualizing it, reducing it; its use requires re-embedding it in the social process. These are conceived not as *stages* but as moments – thus secondary instrumentalization may be and commonly is pre-empted and pre-visioned in primary instrumentalization. The general position is methodological relationalism: social analysis is analysis of relational complexes, and analytically isolable elements such as technologies are always socially embedded.

A distinction needs to be drawn between the affordances and constraints attaching to technologies as such and to social codifications for technologies as they are socially embedded. For instance, both Chouliaraki (2006) and van Leeuwen (2007) identify 'semiotic regimes' or 'semiotic systems' which socially delimit the affordances and constraints of communication technologies in particular institutional settings. Chouliaraki for instance discusses the 'analytics of mediation' for television 'as a space of appearance that presents ... human suffering within particular regimes of pity' as selective appropriations of the allowances of available communication technologies, and van Leeuwen describes the repeated pattern of euphoria followed by disillusion in response to perceptions of the technical allowances and the possibilities for human well-being of for instance first radio, then internet, and of how these technical allowances were socially reduced and controlled in the emergence of semiotic regimes.

Technology and semiosis

Technologies are in part semiotic in character, and human technologies have a strongly semiotic character. Changing communication technologies and associated

regimes change semiotic affordances, semiotic potentials and constraints in ways which impact upon orders of discourse, for instance in the emergence of new genres on the internet, the changing possibilities for and characteristics of genre chains (Fairclough 2003) - systemically interconnected genres which for instance constitute semiotic conditions of possibility for the 'action at a distance' which has been taken as a defining feature of globalization (Giddens 1991) – the proliferation of forms of 'multi-modal' texts which combine different semiotic modes. There is a tendency contemporary societies for the social codification of semiosis to intensify, a process I have referred to elsewhere as the 'technologization of discourse' (Fairclough 1992), the application of technical-instrumental rationality in processes of designing and redesigning semiotic 'objects', for instance interview genres in various institutional contexts, or telephone sales talk (Cameron 2000). Finally, all technologies are subject to construals and imaginaries which may contingently have constructive effects upon them as well as figuring in 'rhetorics of technology'.

Ideology, truth and power

I proposed above a critical view of ideology as a modality of power relations tied to the problem of legitimacy in class societies, and I now need to elaborate this by bringing in the question of truth and sketching out an account of legitimation. Ideologies can be understood as construals of the world which are limited in adequacy without simply being false – while they do construe real 'forms of appearance', they do not construe underlying or 'essential' relations which these are 'forms of appearance' of - and which contribute to relations of domination (Sayer 1979). Merquior (1979) argues moreover that the contentious claim that ideological construals constitute 'false consciousness' can be sustained provided that they are understood as a 'veil' which covers over for those who hold power self-interest which can be shown through analysis to inform their activities, rather than as a 'mask' which imposes on those who are subject to domination construals of the world which are at odds with their interests. On this basis, ideological analysis can contribute to elucidating how 'every established order tends to produce ... the naturalization of its own arbitrariness' (Bourdieu 1977: 164). Habermas (1987) has argued that social integration and coordination as relations of domination in modern class societies are largely secured through 'steering media' (e.g. money) which partly but never entirely obviate the need for legitimacy, and that where legitimacy is needed it may partly be 'engineered', but always needs to be secured to some degree in communicative action. We may say that ideologies figure in engineering legitimacy (in the outputs of the 'public relations industry', Chomsky 2005), and may be operationalized and embedded within steering media (see discussion of 'quasi-steering media' in the next section).

Dialectics of technology + ideology

Marcuse (1968) famously argued that 'the very concept of technical reason is perhaps ideological. Not only the application of technology but technology itself is domination', and in response Habermas (1971) conceded that while 'old' ideology in traditional societies appealed to a 'central world view' (God, freedom etc), 'new' ideology in modern societies is 'technocratic consciousness', which is not a matter of technology itself being domination, but rather technocratic systems rationality colonizing lifeworld and communicative rationality. Also claiming that it is social instrumentalizations of technologies rather than technologies per se that can be ideological, Feenberg claims that for instance 'efficiency' can be defined in purely technical terms, but in socially manifest technological systems construals 'efficiency' have a social content and may have effects, though where instrumentalization pre-empts secondary, technical categories per se may have an ideological character. A final point is that human technologies can be seen as operationalizing ideological discourses naturalizing them as what one might think of as 'quasi steering media', for instance in the procedures and habits of 'self-monitoring' which are a part of contemporary technologies of the self, and evident for instance in quality assurance systems.

Dialectics of ideology and semiosis

The claim that discourses (construals/imaginaries) may be ideological is familiar in semiotically-oriented ideological analysis, for instance within critical linguistics and critical discourse analysis (Fowler et al 1979, Fairclough 1989/2001). This corresponds to what Habermas calls 'old' ideology, and in so far as one accepts Habermas's analysis one might wonder to what extent this form of ideological analysis is really relevant for modern and contemporary societies. However, 'old' ideologies is arguably a misnomer. Does not for instance neo-liberal discourse feature an ideological 'central world view' that 'freedom' (open competition in free markets) will, given time and 'growth', transform the ancient 'grievance' of the poor against the rich, and its 'archaic' modern manifestation in 'class struggle', into 'problems' and 'challenges' which 'we' can overcome (Bourdieu 1998, Rancière 1995)? Although perhaps no longer dominant, 'old' ideology is not displaced in modern societies. With respect to 'new' ideology, we should recognize from a semiotic perspective that genres and styles may also be ideological, for instance as the semiotic moment of human technologies as quasi-steering media (e.g. genres and styles of the 'entrepreneurial university').

Contemporary social formations

I shall move towards contemporary change in Higher Education by way of three summary observations about contemporary social formations. First, *global capitalism* can be seen as the currently emergent form of capitalism resulting from the latest of the periodic restructurings which have marked the history of capitalism. Global capitalism can be characterized in

terms of a configuration of dominant features - it is post-Fordist, neo-liberal, globalizing, information/ knowledge-based, and so forth - which however coexist with other features. For instance, neoliberal capitalism is dominant globally, but it is associated most with certain powers (e.g. USA, Britain), whereas Japanese, Chinese, Indian and much of European capitalisms arguably are not predominantly neoliberal, though they do have neoliberal features which in some case are becoming more prominent. Second, contemporary social formations can productively be characterized and researched as CPE processes roughly, changes in 'fixes' between economic forms, political forms and forms of state, and culture. Third, contemporary social formations (like all social formations) are characterized by contradictions which contingently allow of diverse developments, so it is not appropriate to view contemporary tendencies in a deterministic way, nor with the intense gloom and despondency which so often characterizes reactions to them.

In Britain and certain other countries most affected by neo-liberalism, there has been a discernible shift in the character of the state from welfare state to competition state (or, in Jessop's (2002) more precise formulation, Schumpeterian competition state). Part of this shift is a transformation of the relationship between the state and HE, and of HE strategy and policy (Mulderrig forthcoming). Contemporary HE in Britain (for instance) can be characterized as a complex and contradictory configuration of features and tendencies with certain dominant ones (entrepreneurialism, competitiveness etc) but also others which make it open to the pursuit of diverse strategies, e.g. for the university as public sphere (Delanty 2001), or as a centre for 'critical being' (Barnett 1997). Moreover, within the European Union, strategies for change in HE are now being developed and pursued on a European as well as a national scale (as well as the scale of individual universities), for instance the Bologna strategy for a European Area of Higher Education (comprising a move towards the 'competition university', standardisation of quality assurance procedures, etc).

Aspects of change in Higher Education

I shall illustrate a semiotic point of entry into interdisciplinary social research on change in HE, referring specifically to two aspects of change in HE, the 'marketisation' of HE (in the 'entrepreneurial' or 'competition' university, Fairclough 1993), and 'quality assurance'. I shall treat semiotic analysis as framed within CPE and thus oriented to dialectical relations between semiosis and other elements of the changing political economy of HE (economics + governance) subsuming dialectical relations between semiosis and practice, technology, ideology. One aspect of the semiotic moment is that key terms in construals are ambiguous, diversely interpreted and e.g. competition, competitiveness, enterprise, quality (Barnett 1992). See the discussion of quality below.

Let me summarize focal concerns associated with pursuing a semiotic point of entry into these relations:

- ('Nodal') discourses (construals/imaginaries) of enterprise, competition, quality etc in for instance policy and strategy texts as moments of strategies (strategic *practices*) for political-economic change of HE.
- Variation in discourses and associated strategies, and (factors germane to) selection amongst them.
- Processes associated with retention of selected discourses as moments of (strategies for) political economic change: recontextualization (structural/scalar) of discourses (e.g. between European, national and local scales); operationalization of discourses (enactment, inculcation, materialization) in *practices*.
- 'Intrasemiotic' aspects of operationalization: enactment of discourses as genres (e.g. competition discourse as advertising genre), inculcation of discourses as styles (e.g. entrepreneurial discourse as the entrepreneurial styles of managers and 'leaders').
- The semiotic moment of *technologies* associated with the operationalization of discourses in political economic change (communication and human technologies).
- The *ideological* effects of semiosis (see Barnett 2003 on ideologies of contemporary HE: 'the entrepreneurial university', competition, quality, 'the academic community').

Marketisation of HE: strategy and discourse

Marketisation can be seen as a strategy for transforming the political economy of HE externally (through integration into the market economy) and internally (through the constitution of 'quasi-markets' in HE) with a semiotic moment – a 'Discourse' (Gee 1999) constituted as a structured nexus of discourses (e.g. enterprise, competitiveness, quality). In Britain since the 1980s (for example), a complex set of internal/external, discursive/non-discursive factors have contributed to the selection and hegemony of this strategy and Discourse over others (notably 'traditional' and '60s-democratic'). This Discourse has become dominant but it is not exclusive; it coexists with others in relations of competition, compromise etc which are evident in the hybridity of discourses associated with processes of recontextualization (such that for instance 'quality' in HE is similar to but not identical with 'quality' in manufacturing). Marketisation strategy and Discourse have been extensively recontextualized across structural and scalar boundaries. Structurally, they have been recontextualized in various public sector domains (not only HE, also for instance the Health Service). In terms of scale, they have been recontextualized at national, local and transnational EU) (e.g. Recontextualization is a colonization/ appropriation dialectic (Chouliaraki & Fairclough 1999): the Discourse is liable to transformation in new contexts, wherein it becomes embroiled within existing strategic conflicts and struggles, with outcomes which cannot be

fully predicted or managed (e.g. the recontextualization of Bologna discourse in member and candidate countries of the EU, see Wodak & Fairclough (forthcoming) for a comparison of Austria and Romania).

The Discourse of marketisation is in one moment is an 'imaginary' (or rather set of 'imaginaries') for HE. In so far as it becomes hegemonic (and, through recontextualization, hegemonic in multiple domains at scales) it mav be operationalized. Operationalization subsumes enactment in practices, inculcation in identities, materialization in the physical world. Market discourse is enacted in new or changed practices in HE, for instance the emergence of strategic planning, and such changed practices have a semiotic moment, ie changed genres, styles and discourses. The strategic plan for instance can be seen as a complex genre which subsumes various sub-genres (e.g. mission statement, tabulation of performance indicators). Changed practices also transform previously existing genres e.g. advertisements for academic jobs (Fairclough 1993). Market discourse is inculcated in changed identities in HE - e.g. those of university managers - and changed identities have a semiotic moment, changed styles. For instance the styles of managing, teaching and recruiting of staff and students have undergone changes associated with marketisation. This is however by no means a simple make-over: identities and styles in contemporary HE are hybrid, contradictory, and sometimes deeply problematic.

The operationalization of market strategy and Discourse effects changes in the political economy of HE which are also changes in technologies (on the historically close links between change in technology and in political economy, see Innis 1951, Graham 2007). Political economies are distinctive in terms of space and time, and change subsumes change in spacialization and temporality associated technologies. Marketisation of HE is re-spatialization and re-scaling of HE – institutions operate in national, international and global markets - as well as changes in temporality (including 'speed-up', de-accentuation of duration/continuity). Re-spatialization is constituted through change in communication technologies: universities increasingly operate (advertise, teach, research, network) in markets through ICTs. The semiotic moment of change in practices associated with enactment of market Discourse is in part change in semiotic affordances, potentials and constraints associated with ICTs (e.g. genres associated with email). Inculcation internet. of market strategy/discourse is constituted through changed human technologies e.g. technologies of quality assurance. And the semiotic moment of change in practices associated with the operationalization of market discourse is in part change in semiotic affordances etc associated with human technologies (e.g. genres of self-evaluation).

Discourses within 'market Discourse' may be ideological in helping engineer legitimacy. For instance, while the discourse of 'accountability'

construes relations between the university and the wider society with limited adequacy (we may say that there has indeed been real failure in being accountable, and a real need to be accountable, in a sense), it is arguably part of a misconstrual of the essential relations of the hegemonic strategy, the interests involved and the interest-based objectives being pursued, and as such contributes to securing relations domination. Human technologies operationalize discourses (e.g. those associated with quality assurance) may be ideological as quasi steering media, reducing the need for communicative legitimation through normalizing and naturalizing procedures (e.g. developing and standardizing procedures and mechanisms for quality assurance). However, such solutions to legitimacy problems are prone to be fragile, and demands for communicative legitimation tend to recur.

Quality

'Quality' is a contested concept in HE. There are diverse strategies for evaluation, and diverse discourses of quality. Barnett (1992) suggests for instance that different social forces with a stake in HE tend to favour particular orientations to quality assessment — academics tend to favour peer review, the state favours performance indicators, and the market favours market judgements. 'Internal' concepts of quality which originate within HE can be differentiated from 'external' concepts which originate outside HE, and in the recent past it is 'external' concepts emanating from the state and the market which have been more influential, concepts which resonate with the marketisation of HE.

Barnett (1992) further suggests a correlation between concepts of quality and orientations to quality assurance, the interests of particular social forces, and the way in which 'higher education' is construed as the object of quality assessment. We might say that discourses of 'quality' and their operationalizations in quality assurance systems are ideological in so far as the interests and the assumptions about HE which they are associated with are suppressed, ie remain (relatively) unarticulated in rationalization argumentation. In the case of currently dominant approaches to 'quality assurance', for instance, the view of 'higher education' which might be seen to be implicit in indicators established to measure quality, and the interests of the state in achieving control of HE through instituting continuous comparisons between universities, would seem to have remained relatively unarticulated in official rationalizations of quality assurance systems.

The dominant discourse of 'quality' is operationalized in practices of quality assessment and assurance organized as 'human technology'/ 'technology of governance' systems centring upon *audited self-assessment*. Metagovernance (Jessop 2002) of these systems, in the sense of the 'governance of their governance', coordinates institutional, national and trans-national (particularly European Union) scales of governance, e.g. the University of Lancaster, the

Quality Assurance Agency for HE (QAA) and the European Quality Assurance Agency for HE (ENQA), within a new political economy of HE with changes in spacialization and temporality. Audit can itself be regarded as a form of metagovernance (Power 1994)

A semiotic point of entry might constitute its object of research (Bourdieu & Wacquant 1992) as multiscalar systems constituted semiotically as orders of discourse, distinctive configurations of genres, discourses and styles. Focusing specifically on genre, analysis of genre would include analysis of genre chains or networks (Fairclough 2003), systemically connected genres between which are constituted recontextualization relations involving habitual processes recontextualization and transformation, both within quality assurance systems at different scales, and between them (between the systems of particular HE institutions and national systems, between national systems and trans-national systems). The main generic elements of these genre chains, repeated for instance in staff appraisal within particular universities, QAA academic review, and ENQA assessment of national quality assurance entities, are:

- Self-evaluation of assessed entity
- Discussions between assessors and assessed (and between assessors)
- Assessment report.

This generic format can be seen as operationalizing the discourse of audited self assessment, and as a case of what I referred to above as 'quasi-steering media' which can contribute to naturalizing ideologies.

Conclusion

I have argued that semiosis and other facets of the social process are different but non-discrete moments which are dialectically related. This indicates methodological relationalism, placing the emphasis in semiotic research on dialectical relations between semiosis and other moments of the social process. Cultural political economy is one framework for researching these dialectical relations in modern societies, allowing a specifically semiotic 'point of entry' within interdisciplinary social research. Within this framework I have addressed in particular dialectical relations between semiosis and practice, technology and ideology, and I have illustrated how a focus upon these relations might contribute to interdisciplinary research on recent changes in HE.

One limitation of the paper is that, in seeking to present a general approach to these dialectical relations in terms of CDA and CPE, it is high on abstraction and low on detail. Although I have not undertaken detailed semiotic analysis (which would include textual analysis) of aspects of concrete practices in contemporary HE (e.g. the quality assurance systems of particular universities), the paper has such concrete analyses in view and is written in the hope that it will prove to be a useful resource for those who do undertake them.

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