

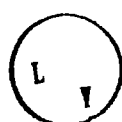
Variation in Phonological Error in Interlanguage Talk

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A thesis for the degree of Doctor of Philosophy

**Submitted to the Institute of Education
of the University of London**

October 1995



Abstract

The research begins with an examination of the problems attending the growth in the use of English as a lingua franca between non-native speakers. It is argued that variable first-language specific phonological 'errors' generate much of the miscommunication that is a characteristic of such interlanguage talk (ILT), original support for this claim being provided by a pilot study involving non-native speaker postgraduate students. Following a brief reappraisal of the place of language transfer in second language acquisition, its role in interlanguage (IL) phonology is examined in detail. Phonological transfer is revealed as a central and complex feature of the developing IL. The theoretical position is exemplified by a selection of phonological transfer errors drawn from ILT classroom observation, such errors being redefined in seriousness according to a taxonomy of new criteria based essentially on their effects on ILT communication. The extensive variation to which these taxonomic errors are subject is discussed in the light of current theories of IL variation, and Accommodation Theory is concluded to have the greatest potential to account for phonological transfer error variation in ILT. The motivations underlying the accommodative processes of convergence and divergence are discussed and the framework is then extended to a motivation considered more salient in ILT: that of interlocutor comprehensibility. Two empirical studies investigate phonological variation in ILT from an accommodation perspective, the findings leading to the conclusion that while accommodation has an essential role in determining phonological error in ILT, its linguistic manifestation is usually one of suppression and non-suppression rather than of traditional convergence and divergence. Pedagogical implications of the research include the benefits of pair and small-group work, thus supporting previous research, and the need for classroom exposure to IL varieties of English.

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Acknowledgements

I am especially grateful to my supervisor, John Norrish, who has been a constant support and whose skilful, balanced guidance enabled me to reorganise and develop the mixed ideas and diverse material that I first brought to him.

Contributions have been made over the years by a number of other people. In particular, Barbara Bradford, Joanne Kenworthy, Amos Paran, Barbara Seidlhofer and Jane Zuengler all offered useful information and made helpful suggestions; John Shephard provided both inspiration and practical help with data collection; Diane Wallis at UCLES supplied CAE oral examination materials for use in the studies. I would also like to thank Henry Widdowson, Guy Cook and the student members of the Ph.D. seminar group in the ESOL Department at the Institute of Education for providing so much stimulating food for thought over the past two years, Michael Gammidge and Alison Sharpe for their kindness and good advice, and Tony Thorne, Susanne Elliott and other colleagues at King's College London, for their moral support.

It goes without saying that this project could not have existed without my students, particularly those at Angloschool, King's College London, and Imperial College. They have all provided me with a wealth of material both directly as subjects in the various studies and indirectly as my classroom students, the latter tolerating with good humour the fact that I tended to put pencil to paper every time they spoke.

I should also thank Peter Kok, a Dutch computer scientist, who several years ago asked me a question that intrigued me so much that it subsequently developed into this research.

My husband, John, has provided both immense moral support and the benefit of his own academic expertise, albeit in a different field, as well as doing far more than his fair share of the child-minding over the past few years. Finally, I would like to thank my children, Nicholas and Harriet - who have forgotten what it is like to have a mother who is not writing a Ph.D. thesis - for allowing me (most days) to get on with my work.

Chapter One

Introduction: Interlanguage talk and problems of mutual intelligibility

Interlanguage talk is a term that has not been much used in ELT and applied linguistics writings. Krashen (1981, 1982) employs it to refer to the simplified linguistic code in which acquirers of second languages speak to one another, similar in a number of ways to both 'foreigner talk' (see pp.128-132 below) and 'teacher talk'. Both Long and Porter (1985) and Ellis (1994) use the term in their discussion of research into small-group work in the language classroom, involving both monolingual and multilingual groups of learners (for example, the studies of Porter 1986 and Gass and Varonis 1985b respectively). Thus, interlanguage talk has been used in the main to refer to second language learners particularly in classroom settings.

The present research interprets interlanguage talk (henceforth ILT) both more widely and more narrowly: ILT here refers to any interaction between speakers of English as a foreign language, that is, for international purposes, whether inside or outside the classroom, learner or non-learner, provided the speakers have different first languages.¹ ILT is seen as problematic both inside and outside classroom settings because of the amount of miscommunication it generates. Schwartz argues that while breakdowns in communication are not uncommon between native speakers of English, "second language learners are faced with an additional burden to interaction - the imperfect command of the language of communication", as a result of which their conversations are "often characterized by errors and problems of understanding" (1980:138-39). Varonis and Gass likewise point out that ILT differs from NS-NS and even NNS-NS interaction not only in that NNS-NNS pairs "spend more time negotiating than the other pairs", but also because "their non-understandings involve more work in the resolution" (1985a:83). More recently, Gass and Varonis have argued that "NNS discourse is a fertile area for the

¹ Though ILT also here includes 'mixed' groups, i.e. where some but not all speakers share the same first language, typically found in multilingual EFL classrooms in Britain.

investigation of problematic discourse, because much of non-native speaker discourse results in some sort of difficulty", a frequent cause being "noise in the channel" (1991:143).

The evidence thus points clearly to a higher frequency of understanding problems in ILT than in either NS-NS or NNS-NS contexts. However, it will be argued here that the difference is not only one of degree, but also one of kind, with the variable phonological transfer errors made by NNSs in particular causing the "noise in the channel" referred to above and compounding the problems of reception that NNSs already have to cope with in L2 interaction (see section 1.2 below).²

1.1 The role of pronunciation in intelligibility in ILT: a pilot study

The view that pronunciation plays a major role in problematic ILT was expressed to the present writer over a number of years, by both successive EFL students and participants in international seminars where English was used as a lingua franca. The opinion most commonly held by these NNSs was that the pronunciation both of speakers from their own L1s and of NSs was considerably easier to interpret than that of speakers from other L1s.

In an attempt to confirm these NNS intuitions, a pilot study was carried out. A questionnaire (see Appendix A) was completed by 65 overseas postgraduate students attending EFL classes at Imperial College, London University, eight weeks after their arrival in England. The respondents were asked first to rate on a five-point (Likert) scale how difficult they found it to understand native (RP) speakers, speakers of English from their own L1 backgrounds, speakers of English from L1 backgrounds similar to their own, and speakers of English from completely different L1 backgrounds from their own.³ A second question asked respondents to indicate which, if any, of thirteen items were responsible for understanding difficulties in ILT (the items having been compiled from a previous exploratory study, in which 42 different EFL students had been asked to list all causes of such difficulties). A final question asked respondents to describe an occasion when they had experienced an understanding problem in ILT, and to consider the cause.

² This is not intended to imply that phonological transfer or, indeed, linguistic processes in general, are the sole causes of miscommunication in ILT. See the first chapter of Coupland et al. (1991) for a detailed analysis of six levels of miscommunication.

³ The four choices were randomised among the questionnaires.

An eyeball test on the figures collected for the first question suggested that there was considerable variation between the four levels, although there was also some variation within the levels. A one-way ANOVA (Analysis of Variance) test was therefore carried out on 48 sets of figures (17 questionnaires having been eliminated because they were incomplete) to calculate whether the between-groups variation was statistically significant. The results are shown in the following table:

Table 1 ANOVA for EFL students' assessments of understanding difficulties of four varieties of English

Source of variation	SS	d.f.	MS	F
Between groups	119.41	3	39.8	58.5
Within groups	128.29	188	0.68	

$p = < 0.01$

SS = sum of squares MS = mean square

With an F-ratio of 58.5, the variation between groups is significant at the 0.01 level, and the students' different ratings of the groups of English varieties thus cannot have been due to chance. The most striking contrast occurred between the sums of the figures for the same-L1 and different-L1 backgrounds (totals 207 and 103, means 4.31 and 2.14 respectively). Clearly the majority of these students found speakers of English from their own L1 backgrounds far easier to understand than those from completely different L1 backgrounds, and relatively easier than either speakers from related L1 backgrounds or NS (RP) speakers. The related-L1 and the NS figures were both just over half-way between the previous two figures, with the related-L1 slightly higher than the NS figures (177, mean 3.68 as compared with 164, mean 3.41). This result was surprising, and did not concur with the opinions expressed by previous students, but may have been a function of the limited exposure of many of these subjects to NS English (see discussion of Smith and Bisazza 1982 below, p.13).

Answers to the second question confirmed the findings of the first: only one of the 48 respondents did not mention some aspect of pronunciation as a source of understanding difficulty in ILT, and the majority selected vowels, consonants and, to a lesser extent, intonation and articulation. Interestingly, only 13 respondents cited grammar or word order, and this figure includes several who ticked every item

on the list. Of still greater interest is the fact that of the 30 respondents who supplied an unequivocal answer to question 14,⁴ a total of 15 described a difficulty occasioned by their interlocutor's pronunciation alone, while 8 named pronunciation in conjunction with another cause (in 5 cases speed of delivery). In some cases they were highly specific, for example, a Chinese student who described the sound /t/ being pronounced as /d/ by a Pakistani interlocutor. Thus, only 7 of the final questions omitted any reference to pronunciation whereas none at all referred to grammar or syntax (see Appendix A, p.203 for full details).

We therefore have evidence from both the literature and the above findings to suggest that ILT involves problems of mutual intelligibility, and that pronunciation involving L1 transfer is perceived to be a critical factor. It will later be argued later that within the English as a foreign language classroom, problematic ILT may promote SLA in general and L2 pronunciation in particular at both productive and receptive levels. On the other hand, in many international English contexts outside the classroom, such problems in understanding and subsequent need for negotiation, peripheral to and interrupting the main purpose of the interaction, are likely to be regarded negatively. In the next section of this introductory chapter, we will consider the reasons why problematic ILT is becoming a source of increasing concern on an international scale.

1.2 Recent developments in international English and their repercussions

The most striking development of English in recent years has been its steady global expansion. In 1992, Phillipson estimated that the number of people speaking English as a native language remained constant at around 315 million, while the numbers speaking it as a second language and as a foreign language had risen dramatically to 300 million and 100 million respectively. Three years later, Crystal (1995) claims that while there are now as many people speaking English as a second language as there are speaking it as a mother tongue, both totals are likely to be exceeded shortly by the number speaking it as a foreign language. Moreover, many of the latter are learning English for the primary purpose of communicating with other NNSs from different first languages rather than with NSs.

⁴ Think of an occasion when you found it very difficult to understand someone speaking to you in English (but not someone whose first language was English). Why was it difficult for you to understand that person?

The nature of IL, however, presents an obstacle to the achievement of the goal of international communication, or ILT, outside the language classroom. Selinker's original theory of interlanguage (1969, 1972) postulated five central psychological processes, of which language transfer is listed first. This perhaps reflects the fact that because of the roles of habit formation and automaticity, transfer was still acknowledged as highly influential in the acquisition of L2 phonology, despite the view held by many at that time of its minimal place in language acquisition in other linguistic areas (see p.17). Later developments in IL theory include a reassessment of the role of transfer in IL, and the recognition of ILs as natural languages, which are therefore dynamic and subject to systematic variation.⁵ In IL, such variation is realised for the greater part as variation in 'error' (see 5.1) and thus, as regards IL phonology largely as variation in phonological transfer error.

The problem for international English is thus that the proliferation of new and growing EFL 'varieties' of English, each with its own phonological idiosyncracies deriving from the effects of variable L1 transfer errors, could lead ultimately to a collapse of mutual intelligibility. We have a hint of what may be in store on a larger scale in the findings of the pilot study described above. Moreover, the same fear has been strongly expressed by several writers working within the ESL framework, for whom an awareness of the potential mutual intelligibility problem has existed for rather longer.⁶ Ufomata, for example, argues that "the need to keep the different accents of English spoken all over the world mutually intelligible cannot be overemphasised, otherwise one of the most important reasons for learning it as a second language would be defeated. To maintain this mutual intelligibility, models must be kept adequately similar" (1990:216). This raises the problem not only of which teaching models should be employed, but of how to assess that they are "adequately similar".⁷ For EFL, these are particularly problematic questions, because of the growing antipathy towards, and consequent changing status of, RP

⁵ See McLaughlin 1987 and Larsen-Freeman and Long 1991 for further discussion of both early and subsequent work on IL theory; see also Chapter Five below.

⁶ This is not the place to enter the EFL/ESL debate, but it should be mentioned that the distinction between the two is becoming blurred as several former ESL countries enter a period of transition and begin to use English not only for intranational but also for international purposes (see A. Brown 1991). The same is true of the terms 'native speaker' and 'non-native speaker'. While they have been used here because of the lack of universally accepted alternatives, their inappropriacy at the end of the twentieth century is recognised (for further discussion see, for example, Rampton 1990, Widdowson 1993, Pennycook 1994, Bisong 1995, Davies 1995, Lee 1995).

⁷ For further discussion of appropriate models for ESL varieties, see Smith 1976, 1978, 1981, Kachru 1981, Strevens 1981, Wong 1981, Lowenberg 1986. For a rather different view from that of the latter, see Quirk 1981 and Pennycook's summary of work on "Simplified Englishes" (op.cit.). Trudgill 1981 and Milroy 1984 make interesting points concerning standard and non-standard varieties of 'NS' English, though in relation to grammar rather than pronunciation.

(see, for example, Macaulay 1988, A. Brown 1991, Daniels 1995), which, according to Crystal, is now spoken in its "pure" form by less than three per cent of the British population (1995:365). In Chapter Four, I will discuss this problem further and propose an alternative to the RP teaching model for EFL.

The need to eradicate those phonological errors which run a high risk of leading to unintelligibility in ILT⁸ is compounded by the NNS's tendency to process information in a bottom-up rather than a top-down manner. This is perhaps a contentious statement since, as Paran (forthcoming) points out albeit in relation to reading rather than listening, the top-down view is the most popular and powerful one in ELT. Paran radically argues that one of the goals of L2 reading instruction should be "to make readers less reliant on top-down processing, and help them progress towards greater reliance on bottom-up strategies as they become more proficient". Others such as Eskey (1988) have argued in favour of a more interactive model of the L2 reading process, involving both bottom-up and top-down skills.

Many argue for a similar integrated model of listening (for example, Nunan 1989, Celce-Murcia 1995). Pinker, however, like Paran puts more emphasis on bottom-up skills, arguing that:

"In a sense, perception that is strongly driven from the top-down would be a barely controlled hallucination A perceiver forced to rely on its expectations is at a severe disadvantage in a world that is unpredictable, even under the best of circumstances. There is reason to believe that human speech perception is, in fact, driven quite strongly by acoustics our brains seem designed to squeeze every last drop of phonetic information out of the sound wave itself" (1994:185).

Others seem to suggest that while both types of skills are important, bottom-up skills may be a necessary prerequisite for top-down processing. For example, Ringbom claims that "Accurate bottom-up analysis is essential to the L2-comprehender, otherwise the top-down processing to which he has to resort will all too frequently lead to erroneous or incomplete comprehension" (1987:40). Similarly, G. Brown argues that we need access to language itself before we are able to make use of contextual knowledge: "context alone may not illuminate language use unless language is first deliberately used to guide listeners to identifying those features of context which will be relevant to the interpretation of language" (1989:97). This fits in well with the accounts of the restructuring of cognitive organisation in learning discussed by McLaughlin (1987). For example,

⁸ See pp.62-63 for a proposed taxonomy of such 'high risk' errors.

according to Karmiloff-Smith (1986, cited in McLaughlin op.cit:137-138), bottom-up processes have to become automatic before the learner moves on to top-down processes, while the latter in turn have to become automatic before moving on to the ability to integrate the two processes.

Celce-Murcia points out that NNSs have problems in both bottom-up and top-down processing. As regards bottom-up skills, whereas these may be assumed to be automatic for NSs and skilled NNSs, "they are not automatic and can be the source of serious problems for beginning and less-than-expert L2 listeners" (1995:364). The problem derives, she considers, from interference from the L1 sound system, along with lack of lexical, morphological and syntactic knowledge. On the other hand, many point to the serious problems that NNSs encounter with top-down skills, particularly in relation to making use of contextual cues, both linguistic and extra-linguistic (see, for example, G. Brown 1990, Dalton and Seidlhofer 1994, Flowerdew 1994, and see further discussion in 4.2.1 below). It is these difficulties that throw NNSs back on an over-reliance on bottom-up skills, leading them to focus too firmly on the acoustic signal. As G. Brown argues:

"For complex social and psychological reasons, they are less sure that they have grasped the topic being spoken of, the opinion being expressed about it, and the reasons for the speaker wanting to talk about it. They are less sure of the relevance of their own past experience in helping them to arrive at an interpretation. On top of all that, they are less sure of the forms of the language ... For all these reasons foreign learners are less able to bring to bear 'top down' processing in forming an interpretation and, hence, are more reliant on 'bottom up' processing" (1990:59-60).

Flowerdew likewise, in his discussion of experiments by Henrichson and Conrad, points out that "the reliance on decoding is a hindrance to non-native speakers' ability to cope with the incoming speech message, in contrast to native speakers, who are able to apply inferential processing to make up for gaps in decoding" (op.cit:22-23).⁹

Since NNS listeners appear to place so much emphasis on the incoming signal, it is thus all the more important that the signal they receive is not seriously distorted by phonological error. However, production free of phonological transfer even of 'serious' errors that have been treated in the classroom is an unlikely outcome for all but a small minority of EFL speakers (Selinker 1972 suggests a figure of five per cent). This is because even where pronunciation has not fossilized containing a

⁹ See also Sajavaara 1986, Nattinger and DeCarrico 1992 for further discussion of NNS problems in top-down processing.

particular transfer error, variation in transfer is inevitable: in certain contexts an item may be produced without any transfer effects, while in others the opposite may occur (see Chapters Five and Six for detailed discussion). However, if we were able to find out why such transfer varies, we would be able to take pedagogical steps to reduce such variation in production. The investigation of the causes of phonological variation is therefore the main focus of this research.

Additionally, it has been shown that the problem may be tackled partly from the receptive angle in the form of exposure to different ILs, which appears to increase the intelligibility of pronunciation. Smith and Bisazza (1982), for example, found that the greater a listener's active exposure to a variety of English, the greater his comprehension of that variety. In their study, the Japanese subjects, who had been taught English by Japanese teachers, found the Japanese speaker easiest to understand, while the Indian subjects, who had had more exposure to American than to Indian English, found the American speaker more intelligible than the Indian. Such exposure to different IL varieties is thus essential if the learner's aim is ILT. As Smith said some time ago, "in today's world non-native speakers use English quite frequently with other non-native speakers and they need specific training for that" (1983:v). So far, however, little has happened in this direction.¹⁰ In fact, as Knowles (1995) argues, there is still a widespread view in the ELT profession that while speaking fluency skills are important, pronunciation per se is not. It is thus not surprising that recent research into IL and ILT has not found its way into pronunciation teaching methodology, despite the fact that for ILT, pronunciation appears to be the most salient consideration, since it forms the greatest obstacle to successful communication in this context.

Having considered the background to the research, viz. the problem faced by speakers engaging in ILT on account of the variable phonological transfer of interlocutors, and established the focus of the research as the attempt to account for this variation, we now move on to a brief overview of the whole thesis.

1.3 Organisation of the thesis

Before commencing the investigation of variation in phonological transfer in ILT, it is necessary first to look at the concept of transfer itself, since it is so central to all that follows, and second to examine what is meant by phonological transfer 'error'

¹⁰ Though see 8.1 below for suggestions as to what form this 'training' could take.

in theory and in practice. To this end, the thesis begins with a discussion of the issues and processes involved in L1 transfer, placing them within the wider historical perspective in order to explain why the contrastive analysis hypothesis lost credibility and on what basis it has more recently been welcomed back into mainstream SLA theory. Chapter Three follows on from Chapter Two by looking closely at the operation of transfer in IL phonology. In Chapter Four, the concept of phonological transfer 'error' is examined and redefined, and evidence from classroom observation is provided to support a discussion of the effects of such error on communication in ILT.

We then move on to consider variation in phonological transfer error, looking first in Chapter Five at the theories that have been proposed to account for IL variation. Accommodation theory is selected as the most promising candidate to explain phonological variation in ILT. Chapter Six provides a detailed account of accommodation theory, focusing in particular on the convergent motivation of cognitive organisation, in other words, convergence to promote communicational efficiency. Having established the framework within which to operate, we turn in Chapter Seven to the studies. In the first study, phonological transfer is compared both between same-L1 and different-L1 dyads, and over time in two task types. In the second study, which is in essence a replication of part of the first, phonological transfer is again compared between two task types. In both studies some sort of convergence is sought, though not necessarily of the kind manifested in NS/NS or even NS/NNS interaction. In the eighth chapter, after a brief resume of the research, we consider how the findings lock into other SLA research on classroom interaction, and look ahead to the pedagogical implications of the present research, namely the need for both a greater emphasis on pronunciation teaching and a realignment of its goals in the context of ILT. Finally, a number of directions for future research are indicated.

The research adopts throughout a number of differing theoretical perspectives, bringing together strands of phonological, second language acquisition, social-psychological, and sociolinguistic theory. This was considered necessary because of the complexity of language variation, such that it is unlikely to be explainable by one single theory or approach (see p.100), and was facilitated by virtue of the range of specialisations of those involved in the early stages of the research.

We turn now to the Second Chapter, in which an issue central to the thesis is examined: that of first language transfer.

Chapter Two

The role of language transfer in second language acquisition: an overview

Kellerman likens the history of language transfer in second language acquisition to that of Poland in Europe, "with ever-changing expansions and diminutions of its territory and even occasional disappearances off the map" (1984:120). Assessments of the role of the mother tongue have, indeed, fluctuated widely over the past few decades. While there has been a general consensus of agreement that language transfer exerts a major influence in the acquisition of L2 phonology (cf. for example Dulay and Burt 1972, Corder 1983, Ringbom 1987), the same cannot be said of its status with regard to morphology, syntax and lexis.

In the light of the findings of recent research, language transfer is currently enjoying a revival of interest, moreover within a broadened and more finely-tuned framework. Strategies other than the straightforward substitution of L1 for L2 forms have been identified along with various factors which constrain the transfer process. This more recent research inevitably bears implications for the interpretation of phonological transfer. Chapter Two therefore provides a brief account of language transfer from the mid-nineteenth century to the present day, focusing in some detail on the most recent developments,¹ as a background to the discussion of the place of transfer in interlanguage phonology in Chapter Three.

2.1 The historical perspective

While we have records dating back to antiquity of associations being made between language contact and contamination, language transfer did not become a central issue in second language acquisition until the 1950s (Odlin 1989:7). Lado's *Linguistics Across Cultures* (1957) is still considered by many applied linguists to be a seminal work in the field for its "fundamental insights" (Selinker 1992:10), regardless of its links with

¹ See Odlin 1989, Nickel 1989, Ellis 1994 (Chapter 8), and James 1994.

behaviourist theory and the fact that it supports its argument with the research of Weinreich and Haugen into bilingual contact situations rather than with empirical evidence drawn from second language learning situations.²

Lado's fundamental assumption about language transfer, which he formulated as the Contrastive Analysis Hypothesis (CAH), was that "individuals tend to transfer the forms and meanings and the distribution of forms and meanings of their native language and culture to the foreign language and culture" and that for the language learner, "those elements that are similar to his native language will be simple for him, and those elements that are different will be difficult" (1957, cited in Gass and Selinker eds. 1983:25). Despite all the activity of the intervening years to prove otherwise, it is interesting to note that Lado's central idea still holds true for many second language researchers and teachers today, who "obviously see mother-tongue influence as accounting for many of the characteristic problems" (Swan and Smith 1986:xi). Moreover, Lado's original account does not preclude the fossilization of similar structures; his claim is that the latter "may function satisfactorily in the foreign language" (*ibid*; emphasis added).

The areas of difficulty referred to by Lado were identified by a scientific comparison of the first and second languages, the technique of contrastive analysis. As Odlin points out, teachers were noting down contrasts between languages known by their students and languages to be learnt as early as the ancient world, and from the late-nineteenth to the mid-twentieth century, several language teaching methodologies, such as those of Sweet, Jespersen, Palmer and Fries, were taking account of the effect of the native language on second language acquisition (1989:15). Fries, Lado's teacher and subsequent colleague, in fact makes an explicit link between teaching methodology and contrastive analysis with his observation that "The most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner" (1945:9). However, it was not until Lado's 1957 publication that the contrastive approach was developed into a precise "technology of CA" (Selinker 1992:9).

The view of language learning which underpins these earlier ideas about language transfer is a behaviourist one, informed by the general theories of learning of contemporary (ie. mid-twentieth century) psychologists. The underlying assumption made by the behaviourist applied linguists was that language learning was, like all other

² However, see Odlin 1989:23-24 and Ellis 1994:310 on the relevance to L2 acquisition of transfer in bilinguals.

learning, a question of habit formation, according to which a given stimulus elicits a specific, automatic response. Learning was considered to occur through analogy rather than analysis, and the main obstacle to successful learning to be interference from old habits, that is, from prior knowledge (cf. Skinner 1957). Errors had no place in the behaviourist scheme of things. They were thought to arise from 'negative transfer', that is the areas of difficulty caused by differences between the first and second language, as opposed to 'positive transfer', which was thought to occur when the two language patterns coincided. The errors caused by negative transfer, or 'interference', were considered to be bad habits that were harmful to second language learning, and therefore to be eradicated as soon as possible. The focus of contrastive analysis was entirely on the learner's first and second languages, with no interest being shown in his intermediate grammar (or 'interlanguage').

With hindsight, it is obvious that Lado's original theory can be criticised on a number of counts, not least in its behaviourist attitudes towards error and to the role of prior knowledge in language learning. On the other hand, its central theme of L1 influence on subsequent L2 acquisition clearly retains relevance today, particularly in the area of interlanguage phonology (where habit formation is still thought to play a significant part, see, for example, Ringbom 1987, Odlin 1989). We will therefore examine the objections and subsequent counterobjections to the CAH in order to assess its current standing in the theory of second language acquisition, before considering the somewhat special case of phonology.

Direct criticism of the CAH came from two sources: from the Chomsky 'school', with its attack on behaviorist views of language acquisition, and from the proponents of Error Analysis, in particular Dulay and Burt, with their equation of L2 and L1 language acquisition processes (1972), and their consequent claims of intralingual rather than interlingual sources of error (1974a, 1974b). At the same time, the work of Corder, Nemser and Selinker on interlanguage, shifted the focus of interest away from the learner's first and second languages onto his intermediate system, evidence of which was provided by his errors, and in which transfer was considered to be but one of a number of factors.

The behaviourist views implicit in the CAH were attacked by Chomsky as early as 1959 in his review of Skinner's *Verbal Behaviour*. As Ellis points out, Chomsky's review "set in motion a re-evaluation of many of the central claims" (1994:300). The main point of contention was the application of the terms 'stimulus' and 'response' to language learning. These terms were considered to explain neither the language

learner's capacity for creative construction, nor the human biological predisposition to learn language, both concepts being central to the mentalist interpretation of language acquisition (although not yet fully articulated in Chomsky 1959). Moreover, the behaviourist concept of having to unlearn an old habit in order to learn a new one was manifestly inapplicable to the L2 situation.³ On the other hand, the learning of an L2 has been shown to affect ("enrich") the L1 in a variety of complex ways (Sharwood Smith 1983:222-231), and Ellis (1994) even considers the loss of the native language to be an ultimate possibility in some instances.⁴ Dulay and Burt (1972) point out that the verbal learning psychologists subsequently replaced their original concept of the 'extinction' of old habits with one of 'suppression'. The concept of the suppression of L1 habits will nevertheless be taken up in later chapters, where we will find that it is indeed relevant not only to the interpretation of the ILT data presented, but also to the acquisition of L2 phonology itself.

Further objection to transfer theory was directed towards its use of the grammatical model of the structural linguists. The latter had traditionally focused on the surface structure of languages and had tended not to find common patterns, but rather to emphasise the differences among them. On the other hand, with the growing interest in transformational grammar, similarities among languages were being identified at the deeper level, and the focus of attention was shifting to language universals. Ellis points out that the transfer-structuralism partnership in any case contained an inherent contradiction, for "how can an effective comparison be executed if languages do not have any categories in common?" (1985:25). The interest in universals was not restricted to universals among languages, but was extended to universals among language learners as a result of the findings both of the so-called 'morpheme studies' and of Error Analysis. The latter procedure took over from contrastive analysis in the late 1960s and early 1970s, not only because of the objections to the CAH outlined above, but also because of apparent flaws in the predictive powers of contrastive analysis.

The main purpose of contrastive analysis had been to predict the errors likely to be made by a particular learner through negative transfer where his first language differed from the target language, and thus to enable pedagogical steps to be taken to prevent such errors from occurring. However, by the late 1960s, it had become clear that contrastive analysis both under- and over-predicted, in the sense that it both predicted

³ See Baker 1993:179 for evidence that a second language need not suppress the habits of a first one.

⁴ For further discussion of bidirectionality of transfer see Gass and Selinker 1983, Flege and Hillenbrand 1984; also Odlin 1989:12-14 on 'borrowing transfer'.

some errors which did not materialise and failed to predict others which did (see, for example, McLaughlin 1987). In addition, the CAH was criticised for attempting to provide insights into the processes of second language acquisition purely through analysis of a linguistic product (Long and Sato 1984). Contrastive analysis at best therefore seemed merely to have the potential to identify errors as deriving from negative transfer after the event (the weak form of the hypothesis), rather than the power to predict such errors beforehand (the strong form), or to account for their occurrence. Clearly, other factors than transfer needed to be identified, and error analysis offered a promising means of doing so.

It was Corder (1967)⁵ who first observed the usefulness of errors for learner, teacher and researcher alike (see below), and again Corder who suggested a procedure for carrying out error analysis research (1971). A major advantage of error analysis over contrastive analysis concerns the fourth stage of the procedure, the 'explanation stage', in which the researcher is directed towards an attempt to classify the errors according to their possible causes. By inferring the strategies used by learners, error analysis researchers were thus able to discover more about the processes of second language acquisition.

The five stages involved in Corder's suggested procedure are analysed in detail by Ellis (1994:48-70), who then discusses the two main criticisms that are generally levelled at the technique: its weaknesses in methodology and its limitation in scope. One of the most serious methodological weaknesses involves the difficulty of distinguishing between transfer and intralingual error and, by the same token, the problem for researchers in identifying a unitary source of an error. As McLaughlin points out, citing Andersen, "this may not be an either-or proposition: there is evidence that some errors are the result of the interaction of both factors" (1987:68). However, error analysis could not cater for this possibility.

The main criticism concerning limitation in scope is in fact similar to one that had also been levelled at contrastive analysis, namely the focus on learner error. As Ellis (1994) argues, in order to gain a complete picture of the learner's interlanguage, we need to know what the learner does successfully as well as what he cannot do. We also need to know whether the absence of error can be accounted for by strategies such as avoidance of a particular language item or overproduction of a substitute item, rather than by

⁵ According to Selinker (1992), it was this paper which was responsible for initiating the current interest in SLA and IL research; see also Corder 1983.

successful acquisition, since the use of such strategies is just as much a sign of difficulty as is error itself.

The early empirical studies conducted within the error analysis framework, in particular, those of Dulay and Burt (1974a, 1974b), were motivated by a desire to assess the relative importance of transfer and other, possibly universal, processes in second language acquisition. They indeed found evidence of causes of error other than transfer at work, such as overgeneralisation, simplification and transfer of training. Since such strategies appeared to be common to L2 learners from different first language backgrounds, the resulting errors were considered to be developmental, or 'intralingual' rather than 'interlingual' (Richards 1971), and thus indicative of creative construction. These findings concurred with those of the 'morpheme studies' (e.g. Dulay and Burt 1973, 1974c), which were being conducted at around the same time. In these, a broad developmental sequence was being established among L2 learners with different L1s, although less successfully between L1 and L2 learners.⁶

Equally noteworthy as the percentage of errors attributed in the error analysis and morpheme studies to general processes of language learning, is the percentage that remains accountable to transfer. In one selection of studies (Ellis 1985:29), the figure ranges from 3 per cent to 51 per cent, such wide variation probably being the result of the difficulty described above in determining whether an error is due to transfer or developmental processes (cf. Schachter and Celce-Murcia 1977) or, indeed, to a combination of the two. The 3 per cent figure comes from Dulay and Burt's 1973 study, which involved child subjects, whereas the other studies all used adults. Since it is likely that transfer errors are more common among adults than children (Ellis 1994), the studies are not strictly comparable.

Around the same time as the practitioners of error analysis were engaged in finding causes of error other than L1 transfer, the same question was being approached from a slightly different angle by the work on interlanguage. Whether we are considering as a model of the learner's intermediate system Corder's 'idiosyncratic dialects' and 'transitional competence' (1971), Nemser's 'approximative systems' (1971), or Selinker's 'interlanguage' (1972), L1 transfer is assumed to play a part: indeed, Selinker places transfer first on his list of "Five Central Processes".⁷ In Ellis's words, therefore, "there can be little doubt that some scholars were too ready to reject transfer as a major factor in L2 acquisition" essentially because of its behaviourist links and

⁶ See Ellis 1994:92-93 for a comprehensive tabulation of the major morpheme studies.

⁷ Though see Gass and Selinker 1983 for a discussion of the problems with Selinker's original taxonomy; also Chapter One above for an overview of later advances in IL theory.

"often on the basis of flimsy evidence", whereas subsequent researchers "have sought to relocate transfer within a cognitive framework and have focused their endeavours on identifying the precise conditions that lead to it" (1994:315). It is to the work of the latter researchers that we now turn.

2.2 Language transfer reappraised

In its return to favour, transfer is no longer viewed as "an all or nothing phenomenon", but is seen as interacting with other factors in the creation of interlanguage which, itself, consists of a mixture of errors and target language forms. The following definition provides a good starting point for the discussion of the contemporary position of transfer:

"Language transfer is best thought of as a *cover term* for a whole class of behaviours, processes and constraints, each of which has to do with *CLI, i.e. the influence and use of prior linguistic knowledge, usually but not exclusively NL knowledge. This knowledge intersects with input from the TL and with universal properties of various sorts in a selective way to help build IL" (Selinker 1992:208; emphasis in original).
*cross-linguistic influence

Selinker's definition neatly encompasses the main strands involved in the more recent interpretations of transfer. These distinct yet intertwined strands attempt to explain "the what, when, how and why of this all-pervasive phenomenon" (ibid:209). They can be categorised as first, the constraints on transfer as it interacts with other, often universal or developmental, factors; second, and closely related to the first point, learner use of avoidance and overproduction strategies which in the past confounded predictions of transfer made by traditional contrastive analysis; and third, the newer insights into the role of similarity, facilitating or otherwise, in second language acquisition. Implicit throughout these strands is the placing of transfer within a more cognitive framework.

At this point, it will be useful to say a brief word about transfer terminology. The terms 'interference' and 'transfer' (particularly 'negative transfer') are considered by many to bear pejorative associations with behaviourist theory and some researchers therefore advocate the use of a more neutral term such as 'crosslinguistic influence' (cf. Adjemian 1983, Corder 1983, Gass and Selinker 1983, Sharwood Smith and Kellerman 1986, and Ellis 1994). They claim that the latter term is not only less negative in its implications, but is also better able to embrace all the related phenomena that are now known to play a part in transfer. Kellerman, on the other hand, earlier argued that the term 'transfer' is "a perfectly ordinary word which should be returned to

the public domain, and not bound to an outmoded theory", but that "there is a case for limiting the use of the term or at least defining its use more carefully" (1984:102). Moreover, as Ellis points out, the term 'transfer' persists in the literature (cf. Selinker's use of it in the definition above) partly, no doubt, because of its brevity. For this reason (and also because habit formation, though by no means telling the whole story, is not irrelevant to the discussion of interlanguage phonology), the term 'transfer' will be used here in the sense of Selinker's definition (above) except where the literature under discussion uses an alternative.

2.2.1 Constraints on transfer

The first of the strands of modern transfer theory mentioned above concerns the way in which it interacts with and is constrained by other phenomena. The six constraints on transfer discussed by Ellis in detail will now be outlined briefly.⁸ At the language levels of syntax, phonology, lexis and discourse, transfer is governed at least in part by universal developmental factors. For example, the transfer of the topic-comment structure of Chinese and Japanese learners also represents a universal developmental stage in early second language acquisition, such universal features being more widespread where they have a basis in the learner's L1.

This example also illustrates the growing interest in transfer at the level of discourse which, like the transfer of phonology and lexis, appears to be more prevalent than that of syntax. Ellis suggests as the cause of this phenomenon the probability that "most learners have a much more highly developed metalingual awareness of grammatical properties than of phonological or discourse/pragmatic properties" which may enable them to control their choice of linguistic form at the level of grammar to a greater extent than at the other language levels and this may inhibit transfer" (1994:317). Where phonology (and probably lexis, at least in terms of lexical strings) is concerned, it should also be added that habit formation and automaticity play a part (see 3.3.2 below).

The second constraint on transfer involves sociolinguistic factors. Of particular interest to the present research is the suggestion that learners may make greater use of L1 transfer in order to promote comprehensibility and a positive affective response. Ellis discusses this factor mainly in terms of transfer differences inside and outside the classroom among learners from the same L1. He suggests that the classroom context encourages them to pay attention to "external norms (as manifested in textbooks, reference books and the teacher)" which inhibit negative transfer, whereas in free

⁸ See Ellis 1994:315-335 for a fuller discussion of these constraints.

conversation in non-classroom contexts, attention may shift onto "internal norms" (ibid:318). Ellis also cites research on the influence of addressee factors on transfer (Beebe 1977, Beebe and Zuengler 1983). In the studies that follow in Chapter Seven, I will investigate addressee influences (in particular, the effect of the addressee's IL) on the degree of transfer in relation primarily to comprehensibility, but also briefly to affective response.

A third constraint on transfer is the way in which it interacts with the degree of markedness of an item. Here, evidence has been provided to support two hypotheses, firstly that learners tend to transfer unmarked L1 forms where the corresponding L2 form is marked, for example, the devoicing of word final English stops by L1 German speakers (see p.36 ff for details of the devoicing phenomenon); and secondly that learners resist transferring marked forms, particularly where the corresponding L2 form is unmarked.⁹ Ellis discusses Eckman's (1977) 'Markedness Differential Hypothesis', in which the CAH is reformulated taking markedness factors into account. He supports Eckman's claim that unlike the CAH, which can only pinpoint areas of difficulty for the L2 learner, the Markedness Differential Hypothesis is able also to assess degrees of difficulty, to predict areas of difference between L1 and L2 which will not cause difficulty, and to explain why some structures are acquired earlier than others (ibid:323).

Kellerman's research on lexico-semantic prototypicality (most famously the 1978 'breken' study) provides evidence of a fourth constraint on transfer. This involves native speaker perceptions of the 'coreness' of items in their first language. Those items that are not seen as core are not considered to be available for transfer, even where the item has an exact equivalent in the second language. For example, only nine percent of the students involved in the study considered the Dutch verb 'breken' to be translatable into the English verb 'break' in the context of breaking a strike.

The fifth constraint discussed by Ellis, psychotypology, concerns the learner's perceptions of the distance between the L1 and the L2, rather than the actual linguistic difference. This concept interacts with the previous one of prototypicality in that while the latter is responsible for learner's decisions as to what is transferrable, the former determines what is actually transferred. To complicate matters further, Kellerman (1979) argues that psychotypology is not fixed, but alters as learners gain experience of the target language, an argument which, incidentally, fits in neatly with Schachter's interpretation of the learner's prior knowledge (see below, p.28). Selinker (1992)

⁹ Though not all researchers support this second hypothesis, cf. Ellis 1994:321.

points out that the cross-linguistic identifications involved in the concept of prototypicality are compatible with his own 'interlingual identifications', and cites Kellerman's (1983) research in which psychotypology is suggested as a possible cause of fossilization.

Of particular relevance to the present research, although not discussed by Ellis, is Kellerman's work on the role of reasonableness and transparency in language transfer. Kellerman claims that "advanced learners obey a general requirement which might be characterized as the *reasonable entity principle* (REP)" so that "in the absence of specific knowledge about the L2, learners will strive to maximize the systematic, the explicit, and the "logical" in their IL. Consequently, L1 structures which would serve to work against the assumed reasonableness of the L2 will tend not to be transferred, and those that would bolster it can serve as transfer models" (1983:122).

Kellerman compares the learner's process of selectivity with 'foreigner talk' and 'caretaker talk', in which native speakers and adults adjust the complexity of their speech, or 'accommodate' to the perceived proficiency levels of nonnative speaker and child interlocutors respectively. The salience of interlocutor comprehension as a strong motivating force for accommodation (convergence) in interaction between nonnative speakers will be discussed at great length in later chapters. For the moment, it is simply worth drawing attention to the fact that Kellerman considers interlocutor comprehension to be a factor in transfer: learners "must, within the limits of the resources available to them, find linguistic *common ground* with their interlocutors find means of expression which are easily processible by the listener and are not potentially obscure..... Language should be transparent" (ibid). Interestingly and similarly, in his investigation into first language loss in second language acquisition, Sharwood Smith suggests transparency as the motivation for transfer from L2 back into L1 (or 'borrowing transfer').¹⁰ He questions, therefore, "whether *hearer*-oriented hypotheses are needed, namely ones where the language user discovers more effective ways of *communicating*, that is, where the L2 reveals certain devices which facilitate comprehension and which are consequently adopted into L1 so that the message-receiver gets the benefit rather than the message-producer" (1983:226).

Finally, Ellis considers developmental constraints in relation to both transfer at different stages of learner development and the interaction between transfer and universal factors.¹¹ As far as the first point is concerned, he cites both grammatical and

¹⁰ See also p.18 above for further reference to such bidirectionality of transfer.

¹¹ Selinker considers that ordering is involved: "language transfer concerns at times are prime and universal principles are activated if the learner's attempt at interlingual identification fails"

phonological evidence to suggest that transfer errors are more prevalent in early stages of development, whereas overgeneralisation errors are more common at later stages.¹² He advises caution, however, since there is also evidence to suggest that many early errors are intralingual and similar to those found in L1 acquisition. Besides, some transfer errors occur only at more advanced stages (for example, pronominal copies in relative clauses), while some early appearing transfer errors have not been eliminated by the time the learner reaches an advanced stage of development¹³ (such as the pronunciation by German speakers of English of those vowel sounds that are similar, but not identical, in L1 and L2).¹⁴ Ellis (1994:330-333) considers these intralingual factors to preclude the possibility that interlanguage is a restructuring continuum (i.e. that the learner gradually replaces the L1 with the L2).

The second point concerns the increasing body of evidence to suggest that transfer and developmental factors work together in forming interlanguage. This can involve, for example, a delay in the progression from one developmental stage to the next if an early universal transitional structure and an L1 structure coincide. Here, Ellis cites one of the most frequently documented studies of this phenomenon, Cazden et al's (1975) findings regarding Spanish learners and preverbal negation: although the pattern 'no + verb' is found in the early interlanguages of all learners and therefore cannot be attributed to transfer in the Spanish case, the fact that the pattern exists in Spanish prolongs this stage of development for Spanish learners. Transfer and developmental factors have also been shown to work together in interlanguage phonology, but this will be discussed separately in Chapter Three.

2.2.2 Transfer and avoidance/over-use

The second strand of modern transfer theory to be discussed here is the discovery that a difficulty with the L2 can result not in the transfer of a substitute L1 item, but in the avoidance of the L2 feature concerned (cf. Schachter's 1974 findings regarding Chinese and Japanese L1 speakers' avoidance of relative clauses in their L2 English), and possibly in the over-use of an alternative. However, it should be noted that over-use may signal a preference for one form in the L1 rather than the avoidance of another in the L2, as in the case of Hebrew speakers' preference for active over passive forms (Kamimoto, Shimura and Kellerman 1992). Indeed, Ellis considers that "over-use of

(1992:261). Elsewhere Selinker argues that we are "programmed" to seek interlingual identifications (op.cit:117). See also Wode (1986), who suggests that transfer may be genetically endowed.

¹² See also Kellerman 1984 on syntax, Major 1987b and Odlin 1989 on phonology.

¹³ John Norrish (personal communication) frequently notices the omission of articles by Chinese postgraduate speakers, notably from Hong Kong, who have an advanced level of English.

¹⁴ See 3.4 for further discussion of L1-L2 phonological similarity leading to fossilization.

linguistic and discourse features as a result of L1 influence is probably more common than generally acknowledged" (1994:306).¹⁵

Because the strategies of avoidance and over-use do not involve error, the learner difficulties which lead to their adoption cannot be identified by error analysis. On the other hand, contrastive analysis, while able to predict such difficulties that arise from differences between the L1 and L2 (such as relative clauses for Chinese and Japanese speakers of English), is unable to explain the absence of a physical manifestation (in the form of transfer) of such difficulties.

Kellerman, in a recent lecture (1992, reported by Ellis), distinguished three causes of avoidance: first, "when learners know or anticipate that there is a problem and have at least some sketchy idea of what the target form is like"; second, "when learners know what the target is but find it too difficult to use in the particular circumstances"; and third, "when learners know what to say but are actually unwilling to say it because it will result in them flouting their own norms of behaviour" (1994:305). As Ellis argues, avoidance is thus a complex strategy which involves the interaction of the learner's first language with his knowledge of the target language and his attitude towards the cultures of both. Avoidance and over-use have been studied and found prevalent at the levels of grammar (Schachter 1974, Levenston 1971), lexis (Levenston 1979), discourse (Olshtain 1983) and phonology (Celce-Murcia 1977). Avoidance strategies in interlanguage phonology are discussed further in Chapter Three below.

2.2.3 *The role of similarity in transfer*

The final strand of contemporary transfer theory to be discussed here, and possibly the most important at least for phonology, is the sizeable rethink that has taken place over the effects of similarity and difference between L1 and L2. Although not all contrastive analyses had been straightforward binary predictions in which similarity equated with simplicity and difference with difficulty,¹⁶ there was no suggestion that the reverse could be true. More recent research has reexamined the roles of similarity and difference and has been able to show first, how similarity can actually lead to difficulty rather than ease of acquisition of target language (particularly phonological) forms, for example Portuguese speakers of English tend to pronounce the word 'television' with primary stress on the final syllable; second, how similarity has facilitating effects in ways other than those accounted for by the CAH; and third, though closely linked to

¹⁵ Eckman (1981a) attributes these results to 'markedness' (see p.36 ff below).

¹⁶ See for example Stockwell, Bowen and Martin's 1965 "hierarchy of difficulty" cited by Ellis 1994:307.

the second point, how similarity can have differential effects on L2 production and comprehension.

The first point has possibly the most relevance for phonological transfer and will therefore be mentioned only briefly here and discussed in greater detail in the next chapter. The main issue at stake can be summarised by Ringbom's view that "the substitution of such L1-phonemes perceived to be "the same" as L2-phonemes, may result in, if not disaster, at least a strong foreign accent" and that "the L2-phonemes that are only apparently similar to L1-phonemes may well eventually pose the greatest problems for the learner, if the norm is fully to resemble native production" (1987:54-55). Ringbom later draws an interesting distinction between tasks or items where "there is only one correct way of doing things" and those which "leave the learner with a fair amount of freedom". He considers that while similarity will be a facilitating influence in the latter, it will prove a hindrance in the former (op.cit:132).

James suggests that a possible cause for both learners' phonemic and grammatical misperceptions may be a certain lack of rigour "in the linguistic analyses they make and on which they base their interlingual identifications", adding that "their criteria are rather superficial ones, such as articulatory or acoustic similarity, or distribution" (1980:168). Ringbom's use of the word "eventually" (above) suggests that such faulty interlingual identifications may result ultimately in fossilization, a phenomenon which is described in detail by Selinker (1992) and which appears to be responsible for some of the data presented in Chapter Four.

The previous point notwithstanding, much recent research has demonstrated the facilitative effects of perceived similarity on second language acquisition, in terms of both reduction in errors and rate of learning (see, for example, Gass 1983, a study of the acquisition of relative clause structure). Regarding lexis, Ellis (1994) comments on the obvious advantage of a learner whose L1 shares with the L2 a large number of cognates (although, of course, where the perception of similarity is misplaced and the words are in fact 'false friends', the reverse is true).

Some of the recent research into the facilitative effects of L1-L2 similarity has drawn links with schema theory, which concerns the activating of prior knowledge structures, or 'schemata' in new contexts. Schachter includes in the language learner's previous knowledge both the L1 and the (possibly imperfect) knowledge of, and expectations about, the L2 (1983:104). Ringbom suggests that "existing knowledge structures are more easily activated by the linguistic cues of incoming data if similarities, cross-

linguistic or intra-linguistic, can be perceived by the learner" (1987:42). He goes on to discuss the role of L1 similarity in the comprehension of the L2, and concludes that the learner "has available so much relevant knowledge from his L1 that he need do relatively little learning to understand the new language, since the use of his previous knowledge works adequately" (op.cit:132).¹⁷

However, according to Ringbom, similarity does not affect L2 production in exactly the same way as it does comprehension, for whereas in the latter "the learner establishes relationships between incoming data and existing knowledge structures in the mind", in the former "the knowledge structures have to be self-activated", and the similarities are therefore less "concrete and tangible" (ibid:136). Ringbom therefore considers that while similarity clearly does have a facilitating effect on production, this is to some extent a result of the interaction between comprehension and production. Later (1992), he discusses this issue in terms of form-to-function mapping, arguing that the learner can call on the "potential knowledge" represented by the L1 more easily in decoding than in encoding, since the first involves form-to-function mapping, while the second involves function-to-form mapping.

All the evidence thus suggests that the language transfer of the latter part of the twentieth century is a very different beast from that of the middle years. Language transfer is now seen as an extremely important factor in second language acquisition (Ringbom 1987), a cognitive process in its own right (Gass 1984, Ellis 1994) in which learners have a creative role to play (Gass and Selinker 1983) and which interacts with universals (Gass 1983, 1984), cognitive principles and constraints (Selinker 1983, Gass and Selinker 1983). Adjemian argues, therefore, that "given the present state of our knowledge about the acquisition of language, the burden of proof is on the proponents of the no-transfer theory: they would need to establish that each case of what they might call "apparent" transfer is in fact explainable by some other means" (1983:251). However, it should be added that while accepting the idea of interaction between transfer and natural acquisition processes in second language acquisition, a small number of researchers consider the latter processes to be primary (see, for example, Andersen 1983) and transfer to have "a rather restricted role" in interlanguage (Zobl 1984:95).

In the light of the recent research and notwithstanding proponents of the latter view, there is a clear need for a broader definition of language transfer (Ard and Homburg 1983, Gass 1984). There is also a need for less "crude" and "subjective" measures to

¹⁷ See also Ringbom 1986, Sajavaara 1986, Selinker 1992.

investigate transfer phenomena (Ard and Homburg *ibid*). Kellerman refers to "the need for 'tough' methods of elicitation" when dealing with complex syntax, discourse and semantics, because of "the difficulty of interpreting the learner's intentions and the opportunities the learner has for ducking out of difficulties" (1984:121). Selinker points out that while "contrastive analysis is a good place to begin we have to be sure to carefully define for each study concepts such as 'similarity of structures', 'congruence' and the like" (1984:334).

In addition, firmer agreement is necessary regarding the predictive power of contrastive analysis and its ultimate pedagogical function. Ringbom comments that "most of the recent European studies of a traditional type have little to do with L2-learning or L2-teaching" and thus with the original aims of contrastive analysis (1987:47). However, he suggests that the main criticism which we should level at the CAH is one of focus, arguing that "the hypothesis that linguistic difference equals learning difficulty should be replaced by the formulation that absence of cross-linguistic similarities produces learning conditions where learning, especially learning to understand, is delayed at the important initial stages" (*ibid*:139). He then suggests briefly how cross-linguistic similarity can be exploited pedagogically at early stages of learning, though not how contrastive findings of the "*absence* of cross-linguistic similarities" (emphasis added) can be incorporated into language teaching methodology.

Adjemian considers contrastive analysis unlikely to be predictive and suggests that "we abandon the perhaps hopeless task of defining a theory of transfer with predictive power" in order to "concentrate on identifying areas of transferability in language knowledge" (1983: 265). Gass, on the other hand, suggests that "language transfer seems to be predictable in a probabilistic sense. We are able to restrict the range of transfer. Some things will not happen, while others probably will happen", though she adds that "the behavior of an individual learner is not absolutely predictable, but he or she operates within given constraints and within a range of possibilities" (1984:124). Ellis adopts a similar position in arguing not for the abandonment of the CAH, but for its "careful revision and extension", pointing out that "many researchers continue to make use of contrastive analysis, but only as a tool for identifying potential areas of difficulty" (1994:309).

In this chapter, we have traced transfer theory and the CAH from relatively uncomplicated beginnings through to a more complex place in current SLA theory. We have noted that although the CAH appears on the surface to suffer from a tendency to both over- and under-predict language transfer, this can often be explained by the

interaction of transfer with developmental and universal processes of language acquisition. Nevertheless, contrastive analysis is probably at its most predictive in the case of phonology, though even here the picture by no means as simplistic as was claimed by early proponents of the CAH. It is to the position of language transfer in interlanguage phonology that we turn in the next chapter.

Chapter Three

Language transfer in interlanguage phonology: theoretical positions

Despite the fact that language transfer has always been considered to operate most extensively at the phonological level, until relatively recently, remarkably few studies had been conducted in this area as compared with the other linguistic levels. Tarone (1978) suggests two main reasons for this situation: first, the general belief that IL phonology is affected mainly by negative transfer in uninteresting ways; and second, as claimed on p.13 above, the widespread assumption among many of those involved in researching and teaching second languages (to which could be added those involved in the writing of classroom materials), that pronunciation is in itself not very important in second language acquisition. Indeed, according to Wenk, "there is a dearth of materials available to learners on the rhythms of speech, and the topic is seldom the object of extensive pedagogical treatment" (1986:120), and my own experience as a teacher trainer suggests that despite notable exceptions,¹ the position has not changed significantly since Wenk made his comment. Phonology is still underrepresented as compared with grammar and even, nowadays, lexis. Moreover, suprasegmental features, considered by many to be the most crucial, since it is rhythm and stress which indicate salience for the listener (see p.81 ff), tend to be the most neglected of all, often tacked on at the end of pronunciation manuals or incorporated haphazardly throughout (De Bot 1986, Odlin 1989, Seidlhofer 1995).

Tarone (op.cit.) counters the first of the two negative views expressed in the previous paragraph by pointing out that transfer per se represents only a part of the influence on interlanguage phonology, and the second by emphasising the link between pronunciation and intelligibility. In a discussion of attitudes towards the teaching of pronunciation, Beebe also draws attention to the intelligibility argument. She points to a

¹ Particularly worthy of mention are Kenworthy 1987, Bradford 1988, O'Connor and Fletcher 1989, Rogerson and Gilbert 1990, Brazil 1994. Wennerstrom 1994 reports a rise in attention to intonation in recent textbooks, but it must be said that this is still modest by comparison with the treatment of segmentals, let alone other linguistic areas, particularly grammar. As Dalton and Seidlhofer rightly claim, "even when other aspects of pronunciation are dealt with thoroughly, intonation is usually given short shrift or left out altogether" (1994:75).

flaw in the assertion that pronunciation should only be taught where it impedes communication, since "pronunciation always affects what we communicate and how well we communicate it", and concludes that pronunciation "should therefore be taught seriously to adults as well as children" (1984:166).

Regardless of differences of opinion concerning both the status of phonology within second language acquisition and the role of language transfer within interlanguage phonology, there appears to be general agreement that while most successful in its predictive powers at the phonological level (see Chapter Two), even here the original version of the CAH has substantial failings. The literature is dotted with references to the inability of the CAH to predict the exact nature of the substitutions that arise from L1 transfer which, indeed, often consist of forms belonging to neither native nor target language. Repeatedly, calls are made for the CAH to be developed into a more sophisticated model able to predict even phonological variation, by means of the incorporation of both developmental and universal processes as well as sociolinguistic and other factors (see, for example, Schmidt 1977, Beebe 1980, Ioup 1984, James 1986, Major 1987a, Weinberger 1987). Much of the recent research in interlanguage phonology has begun to tackle precisely these areas, and no doubt its findings will ultimately filter through to foreign language pedagogy. After a brief discussion of the now widely accepted view that language transfer operates more frequently at the phonological than the syntactic level (the extreme version of this view being that "while interference is minimal in syntactic development, it is rampant in phonological development", Beebe 1984:167), the greater part of this chapter will therefore be devoted to an examination of precisely how, according to the findings of recent research, phonological transfer operates and how the CAH should be modified to take account of these findings.

3.1 The differential effects of transfer on interlanguage syntax and phonology

In a study investigating the claim that transfer operates predominantly at the phonological level (Ioup 1984), judges with teaching experience of English as a foreign language were asked to differentiate between the L2 English of two foreign language groups (Hebrew and Spanish) on the basis of written and oral data respectively. The task was found to be extremely difficult in the absence of phonological cues (ie. for the written data), leading to the conclusion that while L2 syntax is influenced mainly by developmental processes, "transfer is *the* major influence on interlanguage phonology"

(ibid:13, emphasis in the original). Ioup concludes by asking why it is "that transfer is so much more a predominant force in shaping the interlanguage phonology than in shaping the interlanguage syntax" (ibid:14).

This is not the right place for a detailed discussion of the factors involved in interlanguage syntax. However, it is worth pointing out that Ioup appears to overstate the case for the influence of developmental factors at the expense of language transfer as well as universal factors. Other studies (for example, Gass 1983, 1984), on the other hand, argue that the latter two areas play vital roles in second language acquisition, while Wode considers that there may be universal constraints on the structure of natural languages because "the human brain and the processing systems associated with it must be considered to be a finite mechanism that can function only in specific, although as yet largely unknown, ways" (1986:180).

It is therefore likely that interlanguage syntax and phonology are both affected by a mixture of developmental, universal and transfer processes, albeit in different proportions. As Ioup herself points out, one of her reviewers has suggested that a larger sample of data may have yielded different results since "evidence concerning the syntactic patterns of a language is distributed over a much larger domain than in phonology, where a single word gives many bits of information" (op.cit:8). To this could be added two more possibilities. The first is that members of the target language, teachers included, are more likely to be aware of the types of phonological errors that L2 speakers make than they are of syntactic errors. I have no firm explanation for this phenomenon, but it may well relate to prior exposure and stereotyping.² The fact that Ioup's judges were unable to differentiate the two groups of L2 speakers on the basis of their syntactic errors may therefore have more to do with the judges than with lack of syntactic transfer. Second, since any natural language contains rather fewer syntactic patterns than phonetic/phonological permutations, it seems logical to assume that there is a greater likelihood of several L2 speakers from different L1s making identical syntactic transfer errors, and thus both concealing from an observer the identity of the L1 and suggesting a developmental source for these errors. Ioup's conclusions should therefore be accepted with some reservations. Transfer certainly plays a greater part in interlanguage phonology than in interlanguage syntax, but it is neither negligible in the latter nor the only influence in the former. It is to the other influences in interlanguage phonology that we now turn.

² This 'prior exposure' interpretation is supported by some informal data gathered by Jean Ure, indicating that Ghanaians were able to distinguish above the level of chance, in the transcripts of an English-medium international conference, their own native language speakers from speakers of other first languages (John Norrish, personal communication).

3.2 Phonological transfer plus

Before the influences that combine with language transfer to form interlanguage phonology are examined, a few words should be said about the relevance of phonetic as opposed to phonemic descriptions. Beebe argues that "It may be that beginners have difficulty with phonemic contrasts, but (they) are a very minor problem for intermediate and advanced learners. Phonetic inaccuracy, compared with a TL norm, is extensive"(1984:168). She suggests, moreover, that "phonetic deviance is heard by the teacher/listener as a phonemic error" and cites an occasion when she found herself guilty of doing precisely this (ibid.). Odlin considers a phonetic description to be necessary because "sounds in two languages often show different *physical* characteristics, including both acoustic and articulatory characteristics" so that what L2 speakers actually produce are "*approximations* that are neither fully nativelike nor targetlike" (1989:113, emphasis in the original). Indeed, learners often establish interlingual identifications (i.e. equivalence relations between the native and target language) between sounds that differ quite radically at the phonetic level, for example French or German pronunciation of English /r/.

Selinker likewise discusses the importance of utilising allophonic information, since the taxonomic phoneme is not necessarily the relevant unit of transfer. He further points out that although many allophonic substitutions may simply identify a speaker as non-native, they can on occasion lead to intelligibility problems by causing too much 'noise in the channel'. He provides evidence (1992:102 ff) of the tendency of Hebrew speakers of English to substitute an L1 allophone where they share the phoneme with the target language, but the closest phoneme where they do not.

Both Broselow (1983) and Karimi (1987) point out that a better understanding of the structure of the native language, will enable researchers to predict more accurately the nature of pronunciation errors. Although they are referring specifically to knowledge of syllable structure, the same point could be made with respect to the phonetic system of the native language. This is all the more important in view of the fact that it is 'low level', or surface phonetic rules and constraints, that are the most likely candidates for transfer (cf. Altenberg and Vago 1983:158, Broselow op.cit:276).

3.2.1 *Transfer plus universal factors*

Much of the research done in the 1960s and 1970s into child acquisition of L1 phonology focused on the universalist theories of Jakobson, Smith and Stampe³. Although there has been a subsequent shift away from these theories because they were unable to account for individual differences in children acquiring the same language and thus the role of the child L1 learner's cognitive abilities, which Kiparsky and Menn consider to be operational from the earliest stages (1977:32), their contribution was "to clarify universal tendencies that result from purely linguistic constraints imposed by the nature of human language and human articulatory and perceptual systems" (Macken and Ferguson 1981:7).

Since they are universal, such linguistic constraints are likely to play an important part in the acquisition of second languages, and subsequent research into interlanguage phonology has revealed some similar tendencies. For example, there is in first language acquisition a tendency to simplify consonant clusters by means of consonant deletion. In L2 acquisition, this same tendency is often reflected in the use of epenthesis and, as in L1 acquisition, although probably to a lesser extent, in consonant deletion (see below, 3.3 for a discussion of the different motivations underlying the use of these two strategies). This type of simplification has been traced to a universal preference for the CV syllable, which itself may be "a universal articulatory and perceptual unit such that the articulators tend to operate in basic CV programs in all languages" but that "different languages elaborate on this basic program in various ways, adding different combinations of permissible initial and/or final consonants" (Tarone 1978:78). Tarone (1980) provides evidence of Korean, Cantonese and Portuguese speakers' use of epenthesis and consonant deletion to simplify clusters in their L2 English that are permissible in the L1, thus showing universal processes to dominate transfer processes. It is worth noting here that L1 speakers of English themselves make extensive use of the strategy of deletion to simplify consonant clusters in fast speech, both within words, for example, 'scripts' frequently becomes /skrɪps/, and between words, for example, 'looked back' becomes /lʊk bæk/ (Roach 1983:108).⁴

Sato, on the other hand, in her investigation of the relative influences of transfer and universal processes in Vietnamese English, provides evidence for transfer as the predominant process, with closed syllables being preferred to open ones on the basis of

³ See Kiparsky and Menn 1977, Macken and Ferguson 1981, for critiques of these theories; and p.185 below for further discussion of Stampe in relation to the present research.

⁴ A. Brown, however, suggests that it is "misleading to note any general similarities between final consonant reduction in non-native accents and elision in native accents such as RP", because restrictions on elision in the latter are much tighter (1991:109). G. Brown (1990) also points out that elision is very rule-governed in L1 English.

constraints on syllable structure in the native language. However, she insists that her findings do not represent "a denial of the important and pervasive role played by universal processes in IL development" and predicts that with the arrival of "studies that take into account such features as stress, rhythm, and intonation, may come evidence of the ultimately more powerful influence of universal principles of the structure of natural languages in particular domains of phonology" (1984:259).

Two other interlanguage processes, schwa paragoge and terminal devoicing, have been shown to be motivated by constraints that relate to phonological universals. While the process of schwa paragoge is found only in interlanguages (see section 3.3.1), terminal devoicing (the devoicing of certain word-final consonants) is motivated for the grammars of first languages such as German (e.g. [radə] but [rat]), by means of a rule of neutralisation (cf. Eckman 1981a:126-128).

In his study of Mandarin English, Eckman (op.cit.) argues for the process of schwa paragoge as being motivated by a mixture of transfer and universal processes. The transfer element arises from voicing constraints operating in the first language: Mandarin allows no word-final voice contrasts and, moreover, only vowels and sonorant consonants (approximants, liquids and nasals) are permissible in word-final position. In another study (1981b), Eckman contends that the addition of schwa to words such as *pig* by Japanese speakers of English result from the influence of Japanese open syllable structure though, as Anderson (1983b) points out, Eckman's precise rule of vowel insertion does not exist in Japanese. Since the process of schwa paragoge involves the addition of schwa to word-final obstruents, it may therefore be related in some way to the universal preference for open CV syllables described above, even though the structure of the native language has some bearing on the precise resolution of this preference.

The role of universals in interlanguage phonology becomes even clearer in the case of terminal devoicing. Although this process could be predicted by the CAH for first languages such as German, it appears also in the English of speakers such as Cantonese, Spanish and Hungarian, for whom it is not a native language process. For example, Cantonese speakers of English tend to pronounce the word *pig* as /pɪk/ (Eckman 1981b) while Hungarian speakers of English have been shown to devoice final consonants even where the following word begins with a voiced consonant (Altenberg and Vago 1983). The Cantonese example, however, could also be the result of the lack of final voiced stops in the native language.

Eckman accounts for the universal tendency towards terminal devoicing by recourse to the notion of relative degree of difficulty which, in turn, he bases on the concept of typological markedness. He defines the latter thus: "A phenomenon A in some language is more marked relative to some other phenomenon B if, cross-linguistically, the presence of A in a language necessarily implies the presence of B, but the presence of B does not necessarily imply the presence of A" (1981a:140). In terms of voicing contrasts, the relative difficulty of final as opposed to medial, and medial as opposed to initial position is thus predicated on the grounds that all languages which contain final voicing contrasts also contain medial and initial contrasts, but the same is not true in reverse.

Eckman (1977) encapsulated this principle of difficulty-related-to-markedness in the Markedness Differential Hypothesis (MDH), which was mentioned briefly in Chapter Two in relation to both syntax and phonology. Because of its central influence on recent work on language transfer, it will be stated here in full:⁵

The areas of difficulty that a language learner will have can be predicted on the basis of a systematic comparison of the grammars of the native language, the target language and the markedness relations stated in universal grammar, such that,

- (a) Those areas of the target language which differ from the native language and are more marked than the native language will be difficult.
- (b) The relative degree of difficulty of the areas of the target language which are more marked than the native language will correspond to the relative degree of markedness.
- (c) Those areas of the target language which are different from the native language, but are not more marked than the native language will not be difficult. (p.61)

The MDH therefore takes transfer one stage further, by predicting an area of difficulty as arising from a difference between the native and target languages only where the target language is relatively more marked than the native language, thus predicting the direction of difficulty (though see 2.2.3 above and this chapter p.54 ff on difficulty crucially arising from similarity between two languages). This would explain why Eckman (op.cit.) is able to provide evidence that German learners of English, for example, seem to have considerably greater difficulty with the voicing of final voiced consonants than do English learners of German with the devoicing of all final consonants (even though the latter have also to contend with the distractions of spelling pronunciation).

⁵ See also Eckman's 1991 study conducted within the framework of his more recent 'Structural Conformity Hypothesis' (SCH), which he compares favourably with the MDH as the more explanatory of the two. He demonstrates tentatively here in his comparison of NS and NNS consonant cluster production that "at least some universal generalizations formulated on the basis of primary languages also hold for interlanguages" (1991:35).

Related to the difference between the problems of the German learner of English and the English learner of German is the fact that while the former have to acquire two sounds where in their native language they had only one, the latter have to do the reverse and, in effect, suppress one of their two native language sounds. Eckman therefore suggests that the CAH may need modifying to include the "auxiliary hypothesis which claims that it is difficult to learn new contrasts, or new positions of contrast, but that it is not difficult to *suppress* contrasts" (1977:57, emphasis added). He adds, however, that such an auxiliary hypothesis would not account for the lack of difficulty in the acquisition of word initial French /ʒ/ by English learners of French. However, it is not clear on what Eckman bases his evidence here, since many English speakers of French do indeed have problems with initial /ʒ/, often pronouncing it as /dʒ/ (cf. also Selinker 1992:16). He also fails to comment on the ease or otherwise with which French speakers of English manage to suppress this sound word-initially. Moreover, Broselow (1984:275) has a convincing explanation based on English syllable structure, for the ease with which English speakers of French acquire this sound in word initial position.

The process of suppression features in Stampe's (1969) theory of natural phonology,⁶ in which he considers the phonological system of a language to derive from universal processes as a result of articulatory and perceptual constraints, but with processes that do not figure in that language being suppressed. Although, as mentioned above, there has more recently been a shift away from universalist models of phonology acquisition, Stampe's theory nevertheless offers an additional explanation for the fact that German learners of English have problems with the voicing of final consonants while English learners of German do not have the reverse problem, for the latter learners may be involved in an innate, natural process (suppression) while the former are not. The existence of an innate ability to suppress would also help to explain some of the data in the present research (see 7.1 and 7.2 below).

Major also has something to say about suppression. His Ontogeny Model (see pp.41 and 44)) incorporates a stylistic dimension according to which "Many speakers are able to correctly pronounce sounds and words in isolation, but in running speech they slip back into L1 patterns". Major considers this feature of interlanguage phonology to suggest that "in a formal style the speaker is able to suppress interference processes that will reappear in more casual speech", probably because "in casual speech a speaker pays less attention to form and more attention to content" (1987a:107). The question of 'attention to speech' will be further discussed in 5.2. For the moment, however, it is

⁶ See Dressler 1984 for a fuller account of Stampe's theory.

simply interesting to note the equation of lack of transfer with suppression, whether conscious or unconscious.

The MDH in its ability to predict the direction of difficulty, has therefore contributed to the refining of the CAH. Various studies attest to the decisive role played by markedness in phonological transfer (cf. for example, Anderson 1983b, Broselow 1983, 1984). However, the MDH is not as yet able to provide a complete account, since it cannot predict the resolution of difficulty (for instance, will /θ/ be replaced by /s/, /t/ or a blend?) any more than can the CAH (Anderson op.cit., Weinberger 1987). Furthermore, some studies have found transfer factors to take precedence over universal ones (cf. Altenberg and Vago 1983, Sato 1984), while others have found developmental processes to interact with transfer. It is therefore the interaction of transfer and developmental factors that we will consider next.

3.2.2 Transfer plus developmental factors

Traditionally the relationship between transfer and developmental factors in the acquisition of a second language was held to be one of linear progression, with transfer factors featuring earlier and developmental factors later. This view has more recently begun to be considered over-simplistic as a blanket description of second language acquisition. Indeed, as far as syntax and semantics are concerned, Kellerman refers to it as "a hoary old chestnut" which "should finally be squashed underfoot as an unwarranted overgeneralization based on very limited evidence" (1984:121). Nevertheless, it is still considered relevant for interlanguage phonology (cf. Ellis 1994, Major 1987a, Odlin 1989) and will therefore be discussed below.

Studies of the interaction of transfer and developmental factors in interlanguage phonology pursue two main lines of inquiry: first, the L1 = L2 hypothesis, in which parallels are drawn between L1 and L2 phonology acquisition, and which is supported by the claim that even the earliest child L1 acquisition is a cognitive activity (Kiparsky and Menn 1977); and second, the intralingual similarities that have been noted in the development of L2 phonology among learners from different L1 backgrounds. For, as De Bot points out, the concept of "the L2-developmental error" is well justified by the fact that "numerous observations have shown that certain types of error are made by nearly all learners of a given language, irrespective of their mother-tongue". He adds that "it would be too simplistic to claim that such developmental errors merely reflect acquisitional sequences in the L1" and claims that the "multiple causation hypothesis

..... goes some way towards accounting for errors that were problematic for proponents of the creative construction hypothesis" (1986:113).⁷

However, one point that needs emphasising here is that in neither of the two cases outlined above is there a clearcut distinction between the developmental factors being discussed here and the universals of the previous section. One area of overlap involves terminal devoicing, which was described above as a universal phonological process, since it appears in the interlanguages of NNSs of English for whom it is not a native language characteristic. However, terminal devoicing of fricatives has been reported by Edwards (1979, cited in Odlin 1989:123) in the acquisition of English as a first language, and its appearance in interlanguage can therefore also be considered a developmental feature.

Like Edwards' study, Hecht and Mulford's discussion of parallels between L1 and L2 phonological acquisition also focuses on fricatives. Comparing the order of difficulty of fricative and affricate acquisition for L1 and L2 learners of English (the latter being an Icelandic child), they find evidence of the operation of both transfer and developmental processes, and propose a continuum in which transfer processes predominate in the acquisition of vowels, while L1 developmental processes predominate in the acquisition of fricatives and affricates. They conclude that while L1 transfer is "the major factor determining the difficulty of segments", developmental processes "provide a more complete account of the actual substitutions" made by the subject (1982:223). This would imply that if we combine within a single model the CAH, the refinements suggested by the MDH and the developmental hypothesis, we may have a complete picture of language transfer to the extent that we are able to predict not only the area of difficulty and the direction it takes, but also the way in which it is resolved. Hecht and Mulford themselves propose "a model in which those substitutes predicted by both transfer and developmental processes are the ones most likely to appear and to persist", and account for their Icelandic subject's particular problem with final /z/ precisely because it derives from both sources (*ibid*; see also p.45 below).

Schmidt also studies fricatives, in this case /θ/ and /ð/. Since some of his Egyptian Arabic subjects have been exposed to Classical Arabic, which possesses these fricatives in its repertoire, he concedes that it is tempting to account for his subjects' problems with them in terms of developmental sources. He discusses two possibilities: first,

⁷ De Bot (*op.cit.*) summarises the findings of a number of error analyses of L2 intonation, and concludes that both L2-specific developmental error and L1 transfer are implicated in deviant intonation patterns, with L1 featuring particularly in the placement of prominence and in pitch range and direction.

citing Moscowitz's study of the phonology of a two-year-old American girl, that problems with interdental fricatives may be due to insufficient motor control; and second, arguing like Menyuk and others, that /θ/ and /ð/ are well documented as "the sounds mastered last and substituted most frequently by English native speakers" (1977:367). Schmidt ultimately rejects a developmental explanation in favour of one based on stylistic interference from the native language (see pp.44–46 below). However, the fact that all learners of English except Greeks have difficulties with these phonemes (including native Spanish speakers, who have the /θ/ phoneme in their L1, but within a different orthographical distribution), suggests that the problem may be rather more complex. While stylistic variation may indeed play a part (see below, p.44), it is unlikely that developmental processes and phonological transfer factors can be ruled out.

The other line of inquiry to be pursued here concerns parallels in acquisition among learners from different L1s, rather than between L1 and L2 learners. Major points out that while "there is no fundamental difference in the mechanism of substitutions in children acquiring L1 and adults acquiring L2", there is, however, a difference in "the starting point of the learner". For the child this is "the native pre-language system", whereas for the adult it is the native language system (1987a:105), since all adult L2 learners by definition start the L2 process having mastered a first language.

Here, there are three main areas of interest: first, the evidence to suggest that transfer occurs earlier and developmental processes later; second, the difficulties of adult as opposed to child L2 learners in acquiring a native-like accent; and third, the disambiguating motive that underlies certain features of interlanguage phonology. The latter area, however, will be discussed in section 3.3, where the motivations for phonological transfer are considered in detail.

As was mentioned above, agreement on the view that transfer errors manifest themselves at early stages and developmental errors later on, is far from unanimous except, perhaps, within the field of interlanguage phonology. This was the view implied by Corder's (1978) 'restructuring continuum',⁸ and is offered further support by studies of Major, Wenk and Wode. Major's Ontogeny Model (1987a) accounts for the acquisition of second language phonology by means of the interrelationship between interference and developmental factors. He considers interference processes to

⁸ According to the 'restructuring continuum', the learner's L1 is the starting point of L2 acquisition, and is gradually replaced by the L2 as acquisition progresses. This contrasts with the 'recreating continuum' (also Corder 1978), whose starting point is a basic form of the L1, which the learner gradually complexifies.

predominate in the early stages, thus preventing developmental processes from surfacing, but that as interference is eliminated, developmental processes come to the fore.⁹ Wenk's study of the acquisition of English speech rhythms by French learners also lends support to the relationship between the L2 proficiency level and degree of transfer from the L1, with the confirmation that "beginners do transfer rhythmic features of the L1 and that advanced learners can and do succeed in overcoming mother-tongue influence" (1986:125). However, Wenk's intermediate level subjects appear to be using "a kind of hybrid rhythm" (Ellis 1994:330) containing features of both English leader-timed and French trailer-timed rhythms, and thus revealing the existence of an intermediate stage of development which is passed through on the way to advanced rhythmic competence. Further evidence of this "hybrid" phenomenon in interlanguage phonology relates to those sounds which are variously described as "blends", "intermediate phones" and "composites" (cf. Beebe 1984:171, Selinker 1992:173-83). These items, as the terms suggest, are composed of forms such as /fθ/ and /sθ/ for English /θ/, thus representing a "*sequential* production of two variants" which is, in some cases "a sequential merger of an L1 and an L2 sound" (Beebe *ibid.*). Wode proposes a rather more complex relationship between transfer and developmental processes. He argues that L2 phonological systems are acquired by children "through the grid of the learner's L1 system" (1980:129), such that in the early stages of learning, features of the L1 phonological system that are similar to features of the L2 are transferred, while nonsimilar features pass through developmental sequences as in L1 acquisition.

The second area of investigation for what could be termed the 'L2-developmental hypothesis', concerns the difficulty experienced by adult L2 learners, irrespective of L1 background, in the acquisition of a native-like accent. Here, there are two studies of particular interest, the first by Neufeld (1978) and the second by Ioup and Tansomboom (1987). The first examines the problem of adult as compared with child acquisition of pronunciation in general, and the second of L2 intonation patterns in particular.

Neufeld's aims were firstly, to test Lenneberg's 'critical period for language learning' hypothesis at the phonological level and secondly, to find out whether learners can acquire a native-like accent without reference to grammar or meaning. After being given extensive exposure to a series of L2 (Japanese and Chinese) utterances, during which they were instructed to remain silent, the English speaking subjects were asked to

⁹ See also Flege 1980, Wode 1981 for further evidence of earlier transfer giving way to later developmental processes.

reproduce the sounds that they heard. Their performance was then judged by native speaking judges and, in the majority of cases was considered to be either native or near-native. Ioup and Tansomboom, the authors of the second study, account for Neufeld's results in terms of "the mode of information processing employed", arguing that "the subjects were quite likely approaching the input stimuli as melodic contours rather than linguistic data" and that "they would therefore be utilizing gestalt cognitive strategies associated with the right hemisphere" (1987:345). They consider that completely different results would have been obtained had the subjects approached the L2 data from a linguistic perspective. Indeed, it is by no means certain that Neufeld's subjects would retain this L2 intonational competence over time, or if meaning were to be introduced.

Ioup and Tansomboom's own study lends support to their interpretation of Neufeld's results. Like Neufeld, they examined the question of age differences in second language acquisition, but exclusively in relation to the acquisition of tone, using data elicited from Thai learners of various ages. They consider their results to indicate that "tone is one of the earliest aspects of Thai to be acquired by children, regardless of whether the language is their first or second, and one of the latest to be acquired by adults". They argue that such a difference seems "likely to be a function of the types of cognitive processes involved", with adults processing tone as they do all aspects of a second language system, via the left hemisphere, and children, who have not yet developed the necessary cognitive framework to process linguistic data in this way, via the right (op.cit:341-44). This would explain the authors' humming data, for whereas adults acquiring a second language generally have particular difficulty with prosody and intonation, when these are divorced from other aspects of the linguistic system, they appear to present no problem. The authors therefore suggest that, like Neufeld's subjects, their own adults are here processing the data using holistic strategies associated with the right hemisphere such as children utilise, rather than the analytic strategies associated with the left hemisphere which they normally rely on for all aspects of language learning.

Developmental processes, like universal factors, thus interact with language transfer in important ways in interlanguage phonology and, as has already been suggested, it is probably those substitutions that are predicted by both developmental and transfer processes which persist in interlanguage the longest. Selinker expresses a similar view with his suggestion that congruence between a NL and developmental feature "may prolong the restructuring of a particular rule, leading eventually to a fossilized form" (1992:209-10).

Ellis points out that "current work in transfer treats the linguistic and cognitive principles as primary and L1 knowledge as secondary", but adds that "such a conclusion may not be valid for all levels of language" and that "where phonology is concerned, there are grounds for considering L1 knowledge as primary" (1994:334). Nevertheless, as has been discussed thus far in this chapter, interlanguage phonology is not the result of transfer alone, but of transfer interacting crucially with universal and developmental processes. A number of other factors of varying degrees of influence are also be involved in the complex transfer process, and these will therefore be considered in the following section.

3.2.3 Transfer plus other factors

Of the four factors to be discussed here (stylistic variation, linguistic context, frequency and avoidance), the most important in terms of interacting with and constraining transfer is undoubtedly stylistic, or sociolinguistic, variation. This has been approached in a number of different ways in different studies. The studies which account for stylistic variation in terms of degree of formality, task type, learner model and listener factors have the most bearing on the present discussion. However, as many of these areas will be examined in Chapter Five, with variation due to listener effects occupying a central position from Chapter Six onwards, the first three will be mentioned only briefly in the present section, with no further discussion of the fourth until later.

Major considers attention to speech to be a crucial determinant of phonological transfer. His Ontogeny Model (see also p.41 above) proposes that phonological transfer decreases as style becomes more formal, because speakers are then able to "suppress interference processes that will reappear in more casual speech" (1987a:107). He accounts for this situation by suggesting that attention to form plays the greater role in formal contexts, while attention to content predominates in more casual settings, though without explaining precisely what it is in the formal situation that triggers such attention.¹⁰ Major cites support for his claim in previous findings of Dickerson and Dickerson (1977) and Wode (1981). In his own study of Brazilian Portuguese speakers of English, he finds more deviation from the target language for the phenomena investigated (pronunciation of /r/ and final consonant clusters and obstruents) in formal than in casual speech (though it should be noted that Major explains the deviations as deriving from a mixture of transfer and developmental causes, depending on the proficiency of the speaker).

¹⁰ See also 5.2 on the failings of the attention to speech model.

Likewise, Schmidt (1977) shows how a group of Arabic subjects' pronunciation of /θ/ and /ð/ undergoes variation according to the sociolinguistic rules of the native language, with transfer to /s/ and /z/ occurring in colloquial but not in formal speech. Beebe (1980, 1984), on the other hand, argues that transfer of a variant of the native language is likely to occur in formal contexts where strong social value is attached to certain prestige phonological forms, such as Thai initial R. Major notes a similar exception in his Portuguese data: "in Portuguese stressed and pretonic /il/ and /iu/ is pronounced [iw] in normal speech, causing speakers to pronounce English *few* as [fiw] However, in very casual Portuguese /il/ and /iu/ becomes [yu] If this casual process is transferred into English the speaker would then correctly pronounce *few* as [fyu], especially in unstressed positions" (1987a:108).

Related to formality is the consideration of task type. Tarone (1979, 1983, 1988) describes interlanguage as a continuum which ranges from a vernacular to a careful style, depending on the degree of attention to speech which, in turn, depends on the formality of the task (see, for example, 1988:40-41). Dickerson finds support for Tarone's interlanguage continuum paradigm in her study of Japanese-English pronunciation in different task situations, with the most target-like variants occurring in the most formal task (reported in Dickerson and Dickerson 1977). Sato (1985) also offers some support, by demonstrating systematic task variation for word final consonant clusters in the interlanguage of a Vietnamese learner of English. While Weinberger considers "there is no doubt that the type of elicitation task or testing situation affects interlanguage phonological performance", and suggests that task type may affect both the degree and resolution of consonant cluster simplification, he also points out that as far as epenthesis and consonant deletion are concerned, the continuum paradigm "makes no claim regarding the differential use of the two strategies" (1987:403).

Stylistic variation in the degree of transfer in interlanguage phonology may also occur as a function of variability in the model(s) heard by the learner. In their study of the English of their six-year-old Icelandic subject, Steinar, Hecht and Mulford suggest that much of Steinar's phonological variation may result from the range of target language models he is exposed to, including the L1 speech of his school friends, schoolteacher, the adult investigator and the accented L2 English of his parents. Discussing Steinar's 54 per cent devoicing of final /z/, which would be predicted by both transfer and developmental positions (Icelandic has only the voiceless counterpart /s/, while final devoicing is also common among children acquiring English as their first language), Hecht and Mulford suggest the L2 model he encounters as a third factor in Steinar's

high rate of devoicing of this phoneme, and one which may help to explain why it does not improve over the course of the fourteen weeks, for "it is an acceptable American English pronunciation in some phonetic contexts and speech styles (e.g., in rapid speech and sentence final position)" (1982:223). Macken and Ferguson, indeed, consider to be "perhaps most important, the phonetic and phonological characteristics of the particular input the child receives" in the acquisition of L2 phonology (1981:15).

Phonological transfer also interacts with variation due to the linguistic context, the second 'other' factor to be considered here. According to Tarone, "some variables whether phonological, morphological or syntactic, can be shown to vary in form depending upon those linguistic forms immediately adjacent. Some environments seem to have a 'facilitating' effect, correlating highly with an increased number of target-like variants; other environments seem to be 'debilitating', correlating with an increased number of non-target-like variants" (1988:60). The earliest relevant studies are those of the Dickersons (L. Dickerson 1975; W. Dickerson 1976; Dickerson and Dickerson 1977). They provide evidence both for a systematic relationship between accuracy and phonological context, and for change over time spreading systematically from one phonological context to another. Gatbonton's 'gradual diffusion model' (1978) also documents a relationship between diachronic variation and phonological context. However, the model differs from the Dickersons' studies, for whereas the latter suggest that the acquisition process may involve variation from the start, Gatbonton proposes that in the first phase of acquisition, a learner first uses one incorrect phonological form in all contexts and then introduces another form, which is used in free variation with the first, while in the second phase, each form is gradually restricted to its own context. However, her study is cross-sectional rather than longitudinal, so that her model is based on data recorded from different proficiency groups of subjects, and therefore "does not constitute totally convincing evidence for acquisition as a process of gradual diffusion" (Ellis 1994:144).

The third 'other' factor which may interact with transfer is the frequency of an item in the native and target language. Selinker (1992:211-12) refers to his own, Briere's and Nemser's findings, which all indicate that frequency in the native language is a likely prerequisite for transfer to interlanguage. Anderson (1983a), though in relation to interlanguage syntax rather than phonology, produces results which demonstrate the same phenomenon for frequency in the target language. Odlin is critical of the fact that many contrastive analyses fail to take into account the cross-linguistic frequency of sounds. As he points out, some phonemes (e.g. /m/) are very common among the world's phonological systems, while others (e.g. German /x/) are relatively rare, and

"there seems to be a rough correlation between the frequency of a sound and its difficulty for adults learning a second language" (1989:120). He argues that while a traditional contrastive analysis is able to show that two items, one cross-linguistically rare and the other frequent, do not exist in the native language, and will therefore be difficult for the learner, it cannot account for the *relative* degree of difficulty, since it does not incorporate a frequency dimension.

The fourth and final factor to be considered here is avoidance. The findings of Schachter and others were discussed on pp.25-26, mainly in relation to syntax and lexis. The lack of avoidance data for phonology may reflect a very real difficulty that learners have in employing this strategy at the phonological level, for while they may not find it difficult to avoid certain L2 structures or lexical items, the avoidance of phonological features would involve forward planning and quick thinking of a kind unlikely to be within the grasp of all but the most advanced learners. In addition, the majority of learners will probably not have within their repertoire sufficient alternative ways of expressing themselves in order to avoid specific pronunciation problems. The result would therefore be such a degree of hesitation and general dysfluency that learners probably opt for L1 phonological transfer rather than avoiding the target phoneme altogether, hence the lack of data.

Nevertheless, as mentioned earlier (p.26), there is one study of interest. Celce-Murcia (1977) describes the process of avoidance at the phonological level in the speech of her daughter, as she learns English and French simultaneously. Physiologically problematic forms are found to be systematically avoided. For example, the subject finds the fricative /f/ difficult to articulate and therefore consistently prefers the French word "couteau" to the English "knife", and creates a new word "piedball" in order to avoid the word "football". However, three observations relating to the previous paragraph are relevant here: first, although the avoidance documented is phonologically motivated, it tends to occur in the subject's speech at the lexical level, since it is words containing sounds rather than sounds themselves that are avoided; second, the bilingual competence of the subject is probably significant, in that she already has within her repertoire alternative ways of expressing herself, and within the context of her bilingual home assumes codeswitching to be acceptable; third, the same results may not be obtained from adult data, where a concern with fluency may be more likely to override the desire for phonological avoidance than it does in a child.

Phonological transfer is thus a complex process, which on any one occasion interacts with and is constrained by other processes, while being motivated sometimes

consciously and at other times unconsciously. In the following section, we therefore move on to examine the motivations described in the literature as underlying this process.

3.3 Motivations for phonological transfer

Two main areas of motivation will be considered here: first, the desire to be unambiguous and second, automatic transfer as a result of habit formation in the first language. Since these two areas appear to correspond to conscious and subconscious levels of processing respectively, the second area in its most basic form can be described only very loosely as a 'motivation'. However, there is a certain degree of overlap between the two areas for, while some of the strategies involved in the first may operate at a subconscious level, the second can sometimes involve conscious decisions, as the data discussed in Chapter Seven below will reveal.

3.3.1 *Notions of ambiguity*

According to the philosopher Grice (1975), participants engaged in conversation share a 'cooperative principle', the purpose of which is to ensure that the activity is beneficial to both speaker and listener(s) in terms of mutual understanding. The 'cooperative principle' involves four maxims, those of quantity, quality, relevance and manner, often referred to as 'Grice's maxims'. Of these, the maxim of manner, which directs speakers to avoid obscurity and ambiguity, is of particular interest here, since this is precisely the motivation that will be claimed to underlie various phonological transfer choices in interlanguage talk. (It should be noted that any unqualified use of the term 'transfer' henceforward refers to the complex set of processes as described in the previous section rather than to the original monolithic interpretation).

As was argued in the first chapter, the demands for clarity of expression are even greater in NNS than in NS interaction, since the potential for miscommunication increases when participants lack a shared background and the medium of communication is a foreign language (Varonis and Gass 1985b). At the phonological level in particular, the fact that NNSs tend to deviate in different ways from NS models (Bradford 1982) can lead to serious intelligibility problems for listeners.¹¹ However, it seems that NNSs are, themselves, aware of the scale of the problem, and that they endeavour as speakers to take steps to minimise it. This is evident in some of the

¹¹ See 1.1; see also the beginning of this chapter (p.31) for links drawn by Beebe and Tarone between pronunciation and intelligibility.

transfer choices they make, where, in line with Grice's maxim of manner, the prime motivation for their choice often appears to be their assessment of the degree of potential ambiguity of the phonological form.¹² It may also account for the fact that "NSs teaching the language appear to be far more tolerant of learners' errors than NNSs who command the TL as an FL" (Selinker 1992:121), at least as far as pronunciation is concerned, since the latter have first-hand experience of the intelligibility problem for the NNS listener particularly when engaged in ILT.¹³ This interpretation also links up with the main motivation behind the accommodation / suppression data which will be presented and discussed in Chapter Seven below.

In a study which has much relevance for the present research, and which will therefore be discussed in detail, Weinberger (1987) examines the conflicting results that different studies have obtained for word-final syllable simplification. He notes that the two strategies found variously in these studies, namely consonant deletion and epenthesis (termed 'schwa paragoge' where it occurs word-finally), serve the same function despite producing completely different outputs. For example, the word 'big' would become /bɪ/ by consonant deletion, but /bɪgə/ by schwa paragoge. However, as Weinberger points out, only simplification by means of the latter strategy provides an unambiguous form, since /bɪ/ could be the surface representation of other words such as 'bid' (see also Eckman 1981a:140).¹⁴

Weinberger argues that "it is safe to assume that all natural languages contain a constraint against rampant ambiguity, particularly that resulting from homonymy of underlyingly distinct phonological forms" and, citing the work of Kaye, that the notion of recoverability, defined as "the ability to work backward from the surface form through a derivation to obtain the unique underlying representation" is highly valued by the grammars of natural languages (op.cit:404). Since interlanguages are considered to be natural languages, he concludes that interlanguage phonology must, too, respect the notion of recoverability and include a constraint against ambiguity.

¹² For example, Japanese learners of English put considerable effort into eradicating /r/-/l/ confusion.

¹³ For further discussion of NS and NNS differences in tolerance of NNS errors and judgments of intelligibility/irritation, see Brodkey 1972, Albrechtsen et al. 1980, Davies 1985, Fayer and Krasinski 1987, Hadden 1991 for spoken errors; Chastain 1980, Hughes and Lascaratou 1982, Harrison 1983 for written errors; Ludwig 1982 for a review of work on both channels. A fairly frequent finding of these studies is that NSs tend to be more tolerant of errors, particularly spoken, than do NNSs.

¹⁴ Schwa paragoge is also produced by NSs when they are stressing clarity, for example, the radio convention of representing 'nine' as /naɪ nə/, and the underground announcement 'Mind the gap' where 'mind' is often maɪ ndə/.



Weinberger goes on to consider the presence of glottal stops in two other studies, Tarone 1980, where they occur in preference to linking across word boundaries,¹⁵ and Broselow 1984, where they are preferred to cross-word syllabification.¹⁶ As has already been discussed (section 3.2.1 above), Tarone accounts for the glottal stops in her study by means of a universal preference for CV syllables, while Broselow argues that cross-word syllabification is more marked than glottal stops. However, Weinberger invokes the motivation of recoverability in both cases, since the presence of the glottal stops results in recoverable derivations and the reduction of ambiguity.

If Weinberger's analysis is correct, logically epenthesis and schwa paragoge should predominate over consonant deletion for precisely the same motivations. On closer inspection, however, he comes to the conclusion that the differential use of these strategies found in the studies is in part a function of linguistic context relating to task type. Informal tasks such as spontaneous speech, he argues, have sufficient redundancy built into them to counteract ambiguity, whereas formal tasks such as word-list reading lack such contextual cues and therefore require unambiguous phonological strategies.¹⁷ Weinberger incorporates this proposal into his Syllable Simplification Strategy Hypothesis, the second part of which states that "the degree of overall syllable simplification will increase as the task formality decreases", and the third part that the percentage proportion of epenthesis to deletion "should be greater in tasks without linguistic context than in tasks with linguistic context" (op.cit:408).

Interestingly, Major makes a similar point to part two of Weinberger's hypothesis, though in relation to a discussion of style rather than recoverability, for Portuguese speakers' pronunciation of word-final consonant clusters: "schwa insertion would be expected more frequently in a more formal style than would consonant cluster simplification This is because schwa insertion is a fortition process that *insures* that the final consonants are perceived, whereas consonant cluster simplification is a lenition process" (1987a:108, emphasis in original).

¹⁵ For example, a Cantonese subject's rendering of 'she wanted to eat' as /ʃi wʌntətu?it/ or a Korean subject's 'a sandwich and' as /ə sɛmɪ?ʌn/. In both cases, where one word ends with a vowel and the next begins with one, the glottal stop changes the syllable structure to a CV pattern. This phenomenon may also be the result of an attempt to produce lexical items as separate units in the speech stream (cf. Tarone 1980:243-44).

¹⁶ For example, instead of linking the final /s/ to the word-initial vowel in 'this ink', an Egyptian speaker of English is more likely to insert a glottal stop at the beginning of 'ink' (cf. Broselow 1984:273 for a fuller account of the complexities involved).

¹⁷ See Suenobo et al. 1992, who found deletion errors to have a more serious effect than epenthesis errors on the intelligibility of words spoken by Japanese speakers of English, particularly when those words were taken out of context. However, see also Anderson-Hsieh 1995, on the potential intelligibility problems of schwa paragoge, e.g. /hɑ.də/ = 'hard' or 'harder'?

The data which Weinberger collects in his own study of the word-final syllable simplification of Mandarin Chinese speakers of English support the third part of his Syllable Simplification Strategy Hypothesis. The proportion of epenthesis to that of deletion is found to be considerably greater in the word-list task than in the paragraph reading and story-telling tasks. Weinberger then considers the strategies of epenthesis and deletion in terms of phonological rule-ordering, demonstrating that there appears to be a clear ordering relation between them. Deletion is likely to occur first, he proposes, because it requires a word boundary or consonant after the deleted item, and epenthesis would remove this environment. For example, in the case of the word 'and', epenthesis would produce /ændə/, rendering deletion obsolete, whereas deletion would produce /æn/, which could then become /ænə/ by epenthesis. Citing Halle, Weinberger continues by linking phonological rule-ordering with the acquisition order of rules, and concludes that "deletion, as an independent strategy, predates epenthesis in some developmental sequence", adding that if this is so, it would accord well with research that has shown how children learning their first language use deletion extensively, but epenthesis rarely, thus violating the notion of recoverability.

Weinberger therefore suggests that the notion of recoverability is acquired developmentally. He argues that children simplifying by means of the strategy of deletion have not yet acquired the notion, but by the time they do so, they also possess a high level of phonetic accuracy. They therefore no longer need to simplify to this extent, and epenthesis thus becomes obsolete before the stage at which it would be utilised. On the other hand, he argues that adult learners of second languages acquire the notion of recoverability considerably in advance of their attainment of second language phonetic accuracy, which is in any case most likely to fossilize at some point short of NS competence, and therefore unlike children, "are better equipped to abide by ambiguity constraints" (op.cit:413). Moreover, he suggests, within a second language, awareness of potential ambiguity may increase with proficiency, which would explain the conflicting results obtained in some of the previous studies of epenthesis and deletion, with the more proficient speakers being more likely to employ the strategy of epenthesis.¹⁸

Weinberger's study has been discussed at some length, partly for its intrinsic interest, but chiefly because the motivations proposed for the phonological output, that is, the notion of recoverability and the avoidance of ambiguity, are closely related to the

¹⁸ Thus, a possible explanation for the glottal stops that frequently replace deleted consonants in the speech of Cantonese, Mandarin and some Korean (depending on L1 dialect) speakers of English, is that they are intended to compensate for the consonant deletion where less proficient speakers have not yet 'acquired' epenthesis, but have begun to recognise the potential ambiguity.

findings of this research. Also of relevance in connection with the phenomenon of recoverability is Kellerman's *reasonable entity principle* which was discussed in the previous chapter (p.24). It is worth repeating that Kellerman, like Weinberger, links transfer processes to notions of listener comprehension, arguing that learners "find means of expression which are easily processible by the listener and are not potentially obscure" (1983:122).

An interesting example of the potential for miscommunication when the recoverability of underlying forms is rendered impossible is provided by the example of L1 speakers of Spanish and Portuguese. Whereas Portuguese L1 speakers claim to be able to understand Spanish, the reverse is apparently not true. The most likely explanation for this situation of non-reciprocal intelligibility is the fact that in Portuguese many sounds have been suppressed, so that the underlying representations cannot be reconstructed by Spanish listeners from the surface forms of speech (John Norrish, personal communication). It should be added, however, that social-psychological factors such as group attitudes and motivations could also be involved (see, for example, Wolff 1959, Edwards 1982).

3.3.2 *Habit formation and automaticity*

Describing the common problem that English speakers of German have with uvular /r/, which results from lack of use of the uvula in the native language, Odlin points out that although it is misleading to equate transfer with old habits, the English problems with uvulars "suggest that a theory of habit formation may be applicable to certain types of phonetic transfer" (1989:116).

As was mentioned briefly in Chapter Two (p.17), habit formation and automaticity undoubtedly have a role in language transfer, particularly in the transfer of first language phonology. However, nowadays this role is considered to be both somewhat smaller than was previously thought and rather less interesting than some of the cognitive-based transfer processes that have emerged from more recent studies (see 2.2 and 3.2 above). Insofar as habit formation in language transfer is a subconscious process, it cannot strictly be classed as a 'motivation', although it may on occasion involve conscious decision-making in relation to concepts such as interlocutor comprehension and group identity, as will be shown in Chapter Seven.

It is generally agreed that habit formation in language transfer operates more extensively at the phonological level than at either the syntactic or lexical levels. As Ellis points out, "the existence of 'foreign accents' in L2 learning is so well attested that it hardly

requires documenting. In general, native speakers have little difficulty in distinguishing the language background of different learners" (1994:316). Major indicates a difference between the acquisition of phonology as compared with that of syntax as regards positive transfer: "if a sound or process in L1 also occurs in L2 the learner will automatically transfer it to L2 without having to go through any intermediate stages This contrasts with the acquisition of syntax and morphology, where developmental processes often operate even when transfer would produce the correct utterance in L2" (1987a:106).

The influence of L1 phonological habits in second language acquisition is due largely to the nature of the speech process itself. For once the neurolinguistic phase, which involves the central nervous system, and which determines the lexico-grammatical structure of the utterance, its nature and sequencing, is completed, the process thereafter consists of motor commands flowing out through motor nerves to muscles in the speech organs, which in turn act upon the air contained within the vocal tract to generate sound waves, and proceed through proprioceptive feedback loops (Catford 1988). To this extent, the production of speech sounds is unlike that of lexis and syntax, since it does not involve passing messages through the brain, but rather the development of motor skills and thus the formation of speech habits. In other words, "motor skills in L1 speech production are highly automatized and activated completely unheeded" (Faerch and Kasper 1986:60).

Thus, it is not surprising that an automatic element is noted in the transfer of phonology as distinct from that of syntax. Faerch and Kasper, indeed, point out that "transfer may occur at the articulatory level only, all other levels being processed according to the IL system" and go on to cite the example of even advanced Danish learners of English, who "occasionally, in unattended speech, use voiced stop consonants in medial position in words like *bitter*, *rapid*, *litre*, automatically transferring Danish phonological structure". They explain this process as "a result of a Danish phonological plan, controlling the articulation of word-medial stop consonants, and competing with the corresponding English plan, according to which medial stop consonants are either voiced or voiceless" (ibid.). Ringbom indeed argues that the highly automatised L1 phonological system "is not changed or modified for actual productive use without considerable controlled effort" (1987:60).

However, even here the picture is not simple. Flege and Hillenbrand observe in their study of the acquisition of /y/, /u/ and /t/ by American learners of French that "existing articulatory motor plans can be modified and new ones established", and suggest that

the problem is not one of learning new forms of pronunciation, but the acoustic problem of "interlingual identification of L1 and L2 phones" (1984:199; see also p.55 below). Moreover, regarding L1 phonological acquisition, Macken and Ferguson argue that "the process of building up a phonological system is not an automatic one but rather an active, constructive one" (1981:17).¹⁹

3.4 Further considerations in IL phonological transfer

Two other important areas that were discussed briefly in the previous chapter in relation to transfer in general will now be considered in relation to phonological transfer in particular. These are first, the roles of similarity and difference and second, distinctions between perception and production.

Despite the automatic element involved in phonological transfer, there is also likely to be "a cognitive process system underlying the transfer data" (Wode 1986:179). From his study of phonological transfer in different contact situations, including both tutored and untutored second language acquisition, Wode considers it probable "that crucial similarity measures have to be met before speakers draw on the various elements of their L1 repertoire to cope with the L2 targets" (ibid.). Selinker argues, likewise, that the making of interlingual identifications, Weinreich's "suggested mechanism that unites units across linguistic systems" is "a basic, if not *the* basic, SLA learning strategy" (1992:260, emphasis in original). Indeed, there are frequent references in the literature (e.g. Major 1987a) to the facilitating effects of L1-L2 similarity in the very early stages of second language acquisition, when learners seem to rely extensively on previous cognitive experience in order to process new language information.

However, this is not necessarily to claim that such similarity facilitates acquisition. As mentioned in 2.2.3, there has been a considerable reinterpretation of the influence of similarity and difference on language transfer, and this has been most far-reaching at the phonological level. No longer is L1-L2 similarity simplistically equated with ease of acquisition and L1-L2 difference with difficulty. In fact the reverse is now thought to obtain as far as target-like phonological production is concerned, with fossilization occurring as a direct result of the learner's L1-L2 similarity judgements or 'interlingual identifications'. Ringbom (1987) therefore argues that while similarity may facilitate the acquisition of L2 lexis, it is probably a handicap in L2 phonological production.

¹⁹ However, the same cannot be said to apply to the using of the phonological system while focusing on meaning. The learner may cognitively 'know' the system but be unable to produce it correctly in interaction, because of a discrepancy between declarative and procedural knowledge.

The problem resides in the fact that "comparability does not presuppose absolute identity, but merely a degree of shared similarity" (James 1980:168). In terms of pronunciation this frequently results in a failure to base interlingual identifications on phonetic fact, since phonemic equivalence does not necessarily imply allophonic equivalence. For example, English retroflex /ɹ/ is identified by speakers of many other L1s with sounds articulated in completely different ways such as uvular or trilled, although having the same orthographical representation and phonemic role. Major (1987a) suggests that it is more difficult to learn phonologically similar items precisely because the learner unconsciously analyses them in this way as identical, while Flege and Hillenbrand's study of the acquisition of French /y/ and /u/ by native English speakers, demonstrates that sounds which are new are likely to be acquired more accurately than those which have a counterpart in the L1 because they escape "the limiting effect of previous phonetic experience" (1984:198). Indeed, they claim that "judging acoustically different phones to be members of the same category is a fundamental aspect of human speech perception" (op.cit:177).

A further problem exists at the phonological level in the learning of new uses for old sounds, where sounds which are distinguished only allophonically in the L1 are phonemically distinct in the L2. The example which immediately springs to mind is that of Japanese and Korean /l/ and /ɹ/, which are allophones of one sound (somewhere between the two) in the L1, but phonemes of English. Selinker describes anecdotally a Thai student who consistently referred to his field of study, philosophy, as [kwəlasokwi] because [kw] and [f] are variants of the same phoneme in his L1 (1992:34-35).

As has already been pointed out (p.16 above), even in his pioneering 1957 work, Lado leaves some room for doubt as regards the influence of similarity. His original claim does not preclude the possibility of fossilization, and many of the points made above seem to accord with the dichotomy implicit in the original claim. For while much of the evidence points to the facilitating effect of L1-L2 similarity on the *process* of second language phonology acquisition, there is plenty to suggest that it has the opposite effect on the *product*: having identified a degree of L1-L2 similarity and thus more easily acquired an approximation of the target sound, the majority of learners seem to settle for this degree of proficiency, and the sound therefore fossilizes. On the other hand, bearing in mind Flege and Hillenbrand's results (above), one could hypothesise the opposite case for L1-L2 phonological difference, with the process being rendered more difficult, but the final product benefiting from greater accuracy.

Generally fossilization occurs with the learner's production of a sound at a level sufficient to be intelligible to native speakers of the target language, who will simply register a foreign accent (see Altenberg and Vago 1983).²⁰ A problem therefore arises when the learner engages in the more problematic ILT (see 1.1 and 1.2). As regards the process, Tarone (1978) concludes from her examination of the data in Johansson's (1973) study that there may be a link between the problem in learning L2 sounds and the degree of intrinsic difficulty of the sounds themselves (i.e. a universal factor), but with those sounds already in the L1 repertoire being less difficult than those which are not.

A further distinction has been made between the influence of similarity on L2 perception and on production. Sajavaara suggests that "crosslanguage influences in speech reception should ... be considered in a totally different light from such influences in speech production" because there is clear evidence (in Ringbom 1979) that "a genetically related mother tongue helps in the acquisition of a second language through the 'knowledge' of that language which the learners have via their mother tongue" (1986:67).²¹

Broselow et al. claim a significant role for language transfer in the perception of a second language, and consider perceptual transfer to be an extremely interesting phenomenon "because it makes certain aspects of the learning of a second language comprehensible" (1987:351). In their study of the role of transfer in the perception of tone by English learners of Chinese, the authors note that the fourth Mandarin tone, a falling tone, is perceived significantly better in final position in the sentence than elsewhere. They account for their findings in terms of the effects of similarity and difference on perceptual transfer: the ease of hearing "a familiar item in a familiar position" (final being the unmarked position for falling tone in the learners' L1 English) results from positive transfer, while the difficulty of hearing the tone elsewhere in the sentence results from the negative transfer of an unfamiliar item.²²

²⁰ See also Tarone 1978:80-83 and 1980:233-34 on other possible causes of fossilization. Ioup and Tansomboon, citing anecdotal evidence, suggest that fossilization is most extensive at the suprasegmental level. They argue that "the prosodic system of the language is the last to be mastered, that it tends to become fossilized in advanced learners, and characterizes them as having a foreign accent even though other aspects of pronunciation present no problem" (1987:344).

²¹ See also Ringbom 1987:40-42, Ringbom 1992, and 2.2.3 above.

²² Though it should be noted that this is not only in the ear of the hearer: the fourth tone is phonetically realised much more strongly in final position.

In a study carried out by the present author and discussed in the next chapter (4.2.3), a group of learners of English from different L1s are shown to have varying degrees of difficulty in identifying patterns of contrastive stress as a function of differences between the signalling of focus in L1 and L2. A similar effect has been demonstrated in a study of syllable structure transfer, with strings of Egyptian Arabic being factored into words by American English learners according to the syllable and word boundary rules of their first language as the result of negative perceptual transfer (Broselow 1984).

In summary, I argued in this chapter that transfer has a greater effect at the phonological than at the other linguistic levels. I showed how phonological transfer works not alone, but in conjunction with other, primarily universal and developmental, factors and also (to a lesser extent) with stylistic variation, phonological environment, frequency, and avoidance tactics. I also considered motivations for transfer, showing how it is triggered both by speakers' notions of ambiguity and by L1 habit formation. Finally, I took up two themes that were discussed more generally in Chapter Two: the roles of similarity and difference in phonological transfer, and distinctions between transfer in phonological production and reception.

As this chapter has demonstrated in some detail, the language transfer process in all its complexity plays a highly significant role in interlanguage phonology. Moreover, despite Beebe's claim that "contrastive analysis, no matter how refined, will ultimately fail to account for all the variation in interlanguage phonology" (1984:174), the CAH has come through, if not totally unscathed, with greater potential in a modified form to account for and even predict learners' phonological errors. Ioup, in support of Felix's (1980) model, argues against "a new trend in the study of interlanguage phonology which suggests that transfer plays only a minimal role", adding that "it is the opinion of this author that transfer is *the* major influence on interlanguage phonology" (1984:13; emphasis in original). In the following chapter, we move on to examine the types of phonological errors which learners make as a result of language transfer, and their effects on intelligibility and communication.

Chapter Four

Phonological transfer: types of error and their effects on communication in interlanguage talk

The previous chapter focused on the causes, or the 'why?' of phonological language transfer. It became increasingly clear from the research cited there that such transfer is not the monolithic process so designated and despised by the earlier opponents of the CAH, but takes many routes and in so doing interacts with other processes, most notably language universals and developmental factors. In this chapter, we go on to consider the 'what?' of phonological language transfer, that is, the ways in which the processes examined in Chapter Three are manifested in different types of IL phonological, phonetic and prosodic error, though generally without any attempt to pin down error types or even specific examples, to their precise balance of transfer and other causes.

4.1 Criteria for the identification of NNS phonological error

Before any discussion of phonological transfer error can take place, however, it is necessary to determine what constitutes such an error.¹ This procedure is not as straightforward as it might at first appear for "it is not always clear what accent constitutes the reference against which departures in the learners' speech can be judged" (A. Brown 1991:26). The accent which has traditionally provided this point of reference for English is RP, the minority, so-called prestige accent (or, more accurately, group of accents) with its origins in the public school system and a social elite from London and the Home Counties, though nowadays not regional in use. However, for a number of reasons succinctly outlined by A. Brown (*ibid*:30-34), many writers in the field of phonology have recently begun voicing objections to the use of RP as the predominant teaching model for NNS students of English, even in the context of international (as opposed to intranational) communication. Jenner (1995),

¹ See Allwright and Bailey 1991:84ff on the problems of defining 'error'.

moreover, points out the existence of distinctions between the pronunciation of older and younger speakers of standard varieties, and the consequent risk of equipping learners with an old-fashioned pronunciation. The opposition to RP ranges from the call to abandon it altogether as a teaching model (Macaulay 1988) to the advocating of it as "a point of reference or set of bearings for learning" rather than "an attainable behavioural target" (Dalton and Seidlhofer 1994:6). However, while the proposition of retaining RP as a model "for guidance" rather than a norm "for imitation" (*ibid.*) sounds attractive, it does not provide us with a specific 'standard' against which our learners' pronunciation can be measured and does not, therefore, enable us to identify IL pronunciation errors with any degree of confidence.

On the other hand, when we turn to the NS situation beyond RP the situation becomes still more complex, for we find that many NS accents vary widely both across and (like RP) within varieties. They "are not monolithic, but just as open to variation as are non-native accents", albeit with greater "consistency and regularity" than the latter (A. Brown *op.cit.*:26, and see Chapters Five and Six below for a fuller discussion of NNS variation). Thus, while certain features of English phonology and phonetics, such as consonant sounds, remain constant among all NS varieties, others, such as vowel quality, are subject to widespread variation both within varieties and from one variety to another. However, two NS varieties of English, General American and Scottish English, are considered to possess greater homogeneity of accent than the others. In addition, their vowel sounds are thought to be simpler to acquire than those of RP, and moreover, they do not carry the stigma of RP in certain intranational contexts (A. Brown *ibid.*:34-35). It has therefore been suggested that these two varieties may provide the best candidates to serve as alternatives to RP if the single-accent-teaching-model route is pursued (though see Daniels for an argument in favour of learners choosing any one "fairly light but regional pronunciation of English" whose sound they like as their target, 1995:7-8). Nevertheless, at the time of writing, such a process has not begun, so unless we fall back on the traditional interpretation of errors as deviations from RP, we are no further in coming to a decision as to what constitutes a NNS pronunciation error.

Possibly the most promising way round this problem, and the one which will be adopted here, is represented by the attempt to establish a 'common core' of NS English pronunciation which would incorporate those features common to all NS varieties and could thus be used to provide a looser 'standard' to replace RP² Earlier attempts to

² See Davies on the "definability of partial proficiency". He maintains that "the native speaker is a fine myth: we need it as a model, a goal, almost an inspiration. But it is useless as a measure: it will not help us achieve our goals" (1995:157).

identify a common core of English, such as that of Hockett (1958, cited in Bell 1976), were motivated not by the desire to facilitate pronunciation teaching to NNSs, but to provide support for a structuralist theory of language, through demonstrating homogeneity among NS varieties of languages. For, as Bell argues, "in spite of the variability of speech, the high degree of mutual intelligibility between different varieties of mother tongue English, for example, certainly seems to imply the existence of some underlying shared system" (1976:45).

However Bell goes on to criticise Hockett's proposal of a common core of English dialects based on those features common to all dialects of English which are mutually intelligible, on the grounds that mutual intelligibility is itself "an ill-understood concept and one which has proved, for extra-linguistic reasons, extraordinarily difficult to measure" (ibid:46). He also reiterates Hockett's own criticism that intelligibility is not necessarily reciprocal, a point long noted in the social psychology literature (see p.52 above). Nevertheless, intelligibility is likely to be the most satisfactory criterion on which to base a common core to be exploited for practical teaching purposes.³

More recently, therefore, Jenner has echoed Hockett by advocating the need "to establish what *all* native speakers of *all* varieties have in common which enables them to communicate effectively with native speakers of varieties other than their own" (1989:2, emphasis in original). However, Jenner's common core, unlike Hockett's, is motivated specifically by the desire to provide a list of pronunciation teaching priorities for NNS learners of English, which "would offer the learner a guarantee of intelligibility and acceptability anywhere in the world" (ibid). Presumably such a guarantee implies intelligibility comparable to that of a NS speaker, and then only to a NS listener, rather than blanket intelligibility, since many other variables such as language change and receiver competence are involved in this concept. Jenner's list of priorities embraces the following features of NS English pronunciation: vowel quantity but not quality; the consonantal inventory but not the phonetic details; syllable structure; stress-timing; and within the intonation system, prominence, nuclear placement and a binary set of tones. In addition, Jenner has very recently re-examined the status of the eight NS diphthongs and suggests that only three, viz. the 'wide closing' diphthongs /aʊ/, /aɪ/ and /ɔɪ/, appear to be common to all NS varieties and therefore "necessary for phonemic distinction and general intelligibility". However, he concludes that diphthongs overall differ widely among NSs and cannot, therefore, be accorded high

³ Ufomata (1990) speaking from an ESL perspective advocates a different approach. He suggests we study the varieties which have emerged in L2 situations, work out what they have in common and the ways in which they differ from RP, in order to work out the redundancies in RP and thus arrive at a 'basic RP'.

priority in L2 teaching (1995:16). As with the pure vowels, then, it is the length rather than the quality of diphthongs that is most salient for intelligibility.

Mutual intelligibility is thus approached above in terms of either NS-NS communication (Hockett) or NNS-NS communication (Jenner), while the present concern is primarily with NNS-NNS intelligibility. However, provide the latter is kept in sight, Jenner's common core provides a good starting point for the present purpose of establishing what constitutes a NNS pronunciation error, without the need to resort to the narrow view of error as any deviation from RP (though see Quirk 1981 for arguments in favour of the adoption of a standard variety as the model for international English).

Obviously, as Jenner (1989) points out, if a learner were aiming at true native-like competence, then a single native variety (though not necessarily RP) would have to be selected as the teaching model, with any deviation from it being regarded as an error. By contrast, where the goal is to be 'comfortably intelligibility' (Abercrombie 1956, Kenworthy 1987) or to achieve a 'minimum general intelligibility' (Gimson 1980), a foreign accent is permissible provided it does not interfere with this goal (in either NNS-NS or NNS-NNS interaction). Such an accent could in fact be said to represent another regional variety of the language, albeit an NNS variety, for instance, 'German-English' or 'Japanese-English', as compared with Welsh, American or Australian regional accents. Indeed, such NNS 'varieties' may on occasion be more widely intelligible than certain NS regional accents. For, as Bowen and Marks point out, "A native-speaker with a strong Cornish accent might well find a Glaswegian less intelligible than an intermediate level French learner of English" (1994:59).

One important benefit to be reaped from aiming for an easily intelligible NNS accent of English rather than a perfect NS one relates to the concept of identity. While some learners clearly do aspire to achieve a native-like accent (cf. Porter and Garvin 1989), many others admit to a reluctance to lose their L1 accent completely (cf. Jenner 1995). As Dalton and Seidlhofer argue, "Pronunciation is so much a matter of self-image that students may prefer to keep their accent deliberately, in order to retain their self-respect or to gain the approval of their peers", so that insisting on learners conforming to target language pronunciation norms and renouncing those of their mother tongue "may even be seen as forcing them to reject their own identity", (1994:7). More poetically, Daniels suggests that in retaining the "sounds, the rhythms and the intonation of our mother tongue" in an L2, we avoid cutting "the umbilical cord which ties us to our mother" (1995:6). Although the desire to preserve group identity by means of retaining an L1 accent tends to be more overtly expressed within ESL than EFL communities, it is

nevertheless not uncommonly found among the latter, and may have some bearing on the fact mentioned earlier that the pronunciation of the majority of adult learners tends to fossilize short of native-like pronunciation (see p.12 above).

Establishing as target models for NNSs, varieties which are comfortably intelligible to all receivers, but yet retain something of the NNS's L1 accent, would therefore provide a number of advantages. First, as has already been suggested, it would allow speakers to feel more comfortable with the L2, since they would not be encouraged to eradicate their L1 identity, except insofar as it impeded intelligibility. Second, from a pedagogical point of view, incorporating features from learners' L1s into their L2 English, would involve making fewer changes to their pronunciation habits, and would thus facilitate the teaching of pronunciation; moreover, where teachers are themselves NNSs, the gap between target and teaching model would be minimised (A. Brown 1991:39-40).

Third, the retention of a foreign accent also holds certain advantages for the NNS in NS-NNS interaction, since the NS interlocutor is likely to adjust his speech in response to a foreign accent in order to facilitate the NNS's understanding, in other words, to engage in 'foreigner talk' (Kenworthy 1987, and see also pp.128-132 below).

Within this scheme of things, a certain amount of pronunciation transfer, or 'foreign accent' is considered acceptable and, indeed, almost inevitable (cf. Daniels 1995 for a rejection of the strong version of the Critical Period Hypothesis and a claim for four non-biological factors as the cause of foreign accent). Types of approximation which do not lead to difficulties in understanding in either NS-NNS or NNS-NNS interaction are therefore not classified here as 'errors'. Having modified Jenner's (1989) common core of NS varieties in order to take NNS-NNS communication more fully into account, I thus arrive at a working definition of a NNS pronunciation error as being constituted by a deviation from (all) NS varieties in the following areas:

- * vowel quantity, (with a particular emphasis on the fact that the long vowels are "very long", Jenner 1995), though not necessarily vowel quality (provided use is consistent), since the latter tends to vary widely among NS accents;
- * the length, but not the quality, of all 8 diphthongs;
- * consonant contrasts (except for those involving /θ/ and /ð/) and certain phonetic realisations (see below, this section, for an explanation);
- * syllable structure, both simplification (generally by means of consonant deletion rather than epenthesis, because of their differential effects on recoverability - see 3.3.1) and problems with stressed and reduced syllables;
- * prominence, but not necessarily weak forms (see p.68) , or any rigid adherence to

stress-timing, whose case has, anyway, been overstated in the past, cf. Faber 1986, Dalton and Seidlhofer 1994:42 and p.80 below);

- * nuclear stress and contrastive stress (as represented particularly by pitch movement and duration).

At the phonetic level, certain features which tend to be considered unacceptable, or stigmatised, by NSs are best included in the error inventory, for example various pronunciations of /h/ and /r/ (but not rhotic /r/, which is far more widely used and understood than the RP variant). In a number of cases, sounds which are categorised by the NNS learner as being similar in the L1 and L2 may fossilize phonetically short of an NS pronunciation (see 3.4). While the resulting foreign accent is generally of no consequence where the goal is comfortable intelligibility, some such deviations may lead to intelligibility problems and are therefore better treated as errors. This is obviously L1-dependent and therefore requires a careful phonetic comparison of the L1 and L2 in order to identify potential phonetic barriers to intelligibility. For example, such is likely to be the case concerning the following features frequently found in the ILs of Japanese-English speakers:

- * the substitution of /h/ with voiceless bilabial [p] when followed by /u:/ in words such as 'who' (but not the substitution of /f/ in words like 'for' and 'full' with the same sound, presumably because the two are acoustically closer);
- * the tendency to pronounce /f/ as [ç] before high front and back vowels, so that 'coffee' becomes [kɔçɪ] and 'few' becomes [çu];
- * in addition to the wholesale phonemic confusion of /l/ and /r/, in which speakers tend to opt for one or other form in all contexts, the use of a sound phonetically somewhere between the two, and thus containing characteristics of both;
- * the pronunciation of /w/ before all vowels except /æ/ as the rounded back vowel [ɰ], so that 'water' becomes [ɰɔtə];
- * the frequent dropping of postvocalic /n/ with accompanying nasalisation of the previous vowel (or, to a lesser extent and depending on the phonetic environment, the substitution of /ŋ/ or /m/, the three sounds being allophones of /n/ in the L1), such that 'ban' is often pronounced [bã]. This latter feature is a particular problem in the large number of '-ion' words in English where, because of the lack of schwa in Japanese and possibly also of the effects of spelling pronunciation, it is nearly always accompanied by a failure to reduce the vowel sound, resulting in [ĩ].⁴

⁴ Information on these phonetic aspects of Japanese was obtained from three Japanese informants.

On the other hand, A. Brown (1991:91-93) recommends accepting, and even teaching, vocalic /l/, i.e. /ʊ/ in place of dark [ɹ] before consonants and syllabically, i.e. in words such as 'milk' and 'little', since NNSs of many L1s have a problem in articulating this sound. In fact, Wells has remarked that the vocalic /l/ substitute is "beginning to seep into RP" (1982:259), while A. Brown (op.cit.) considers that although currently stigmatised (a point on which he may now be out of date), it will ultimately become an accepted standard feature of pronunciation, and Rosewarne claims it as an already prominent feature of 'Estuary English', with the latter accent representing the direction in which RP is likely to move in the twenty-first century (IATEFL Phonsig lecture, January 1995).⁵

At the phonemic level, failure to produce the consonant sounds /θ/ and /ð/ 'correctly' is widespread among NNS varieties other than a small number of European L1s such as Greek, Icelandic and Albanian, and therefore seems to present little barrier to intelligibility in ILT.⁶ Some will, nevertheless, argue for the retention of these contrasts on the grounds of the frequency criterion, /ð/ being the most common consonant in English (cf. Dalton and Seidlhofer 1994:145). Interestingly, in many hours of data collection, only once did failure concerning one of these two phonemes alone present an intelligibility problem. On the other hand, there are at least two incidences of the opposite problem, viz. the interpretation of a correctly produced /t/ and /s/ being understood as /θ/. One of these occurred during a talk about the Tarzan films given by a Japanese student. Despite the established context, when the student pronounced the word 'Tarzan' as /tɑː zæn/, an Israeli student asked "What do you mean, 'thousand films'?". Obviously the mispronunciation of the two vowel sounds was partly to blame, but there was an interesting willingness to interpret the /t/ as a deviant /θ/.⁷

G. Brown therefore considers that "When time is short, it is probably not worthwhile spending time on teaching /θ/ and /ð/ if the students find them difficult". However, she recommends that learners be encouraged to substitute /f/ and /v/ rather than /s/ and /z/, since they are acoustically closer and bear a lower functional load (i.e. distinguish

⁵ However, Joanne Kenworthy (personal communication) argues that vocalic /l/ is not, at least at present, understood by American NSs of English, and cannot therefore be claimed as an internationally intelligible variant.

⁶ /θ/ and /ð/ substitutes rarely cause problems of understanding in NNS-NS interaction either, since contextual cues generally disambiguate words such as 'thick' and 'sick' or 'tick' for the NS hearer, while the approximation of [t] for /θ/ is also a feature of Irish English (A. Brown 1991:28)

⁷ However, the strong claims of the lack of risk attached to /θ/ and /ð/ substitutions in ILT may need qualifying. It was found in one of the studies conducted as part of the present research that such substitutions, particularly of /z/ for /ð/, did indeed cause problems where they occurred with high frequency. Moreover, the Chapter Seven studies generally show that when there is an overall attempt to reduce transfer in ILT, mispronunciations of these sounds are often reduced.

fewer words) in English (1974:53). Indeed, the /f/,/θ/ and /v/,/ð/ distinctions present receptive difficulties even for NSs and are some of the last contrasts to be acquired by NS English children learning their L1 (Norrish 1983), which may help to explain why /f/ and /v/ are commonly substituted for /θ/ and /ð/ by NS adults. Kenworthy (1987:123), on the other hand advocates a two-pronged approach, with a "high priority" being given to /θ/ and /ð/ when they occur in content words, but "optional attention" being paid to them in function words. Her rationale is that the substitution of, for example, 'sick' for 'thick' may indeed lead to confusion, whereas that of 'ze' and 'dat' for respectively 'the' and 'that' is unlikely to. However, two reservations spring to mind. First, that it is difficult to envisage how learners could master these sounds selectively: it would seem merely to add one further complication at the planning level. Second, as was suggested above, the substitution of these sounds is unlikely to affect intelligibility even in function words, particularly in ILT.

Also disregarded in this inventory of errors are tones (i.e. the direction of the pitch movement on nuclear syllables) since these again vary among NS varieties, and since no source has yet managed to encapsulate the 'system' in a coherent set of rules (probably because it is too complex and, in particular, too dependent on the individual speaker and context to be thus pinned down). Coulthard (1991:98-99) discusses the near impossibility of matching attitude labels to tone choices. Indeed, possibly the only generalisable and relatively reliable rule for tones is the binary rule, according to which a rise indicates openness or incompleteness, as in tentative statements and yes/no questions, while a fall implies 'closedness' as in statements and commands. However, this rule is thought to be near universal in its application and may relate to physiological forces involving an increase and decrease of tension (Cruttenden 1986, Cruz-Ferreira 1989). It is therefore unlikely to provide problems for NNSs. Brazil, on the other hand, argues for a system of proclaiming (falling) and referring (rising) tones which signify respectively 'new' and 'given' information. His theory is attractive and highly plausible, and will therefore be discussed in greater detail later in this chapter. However, it must be pointed out that despite recent calls for intonation to be tackled before segmentals (see below, 4.2.1), to date, no teaching materials have even attempted to incorporate Brazil's theory for lower level students, while the two main sources for advanced students, namely Bradford 1988 and Brazil 1994, are considered too complex for classroom use by many teachers, let alone their students (though this claim is based on anecdotal evidence).

Although the defining of pronunciation targets in global terms is a complex procedure involving many linguistic, sociolinguistic and socio-psychological factors, and may

ultimately prove unfeasible in certain contexts, I have nevertheless moved some way in this direction by establishing an inventory of error types that endeavours to take account of intelligibility in NNS-NNS interaction, while at the same time preserving intelligibility for NSs in NS-NNS contexts. In so doing, I found it advisable to redress the balance by taking liberties in certain phonological, phonetic and prosodic areas, in order to accommodate the needs of NNSs. However, it would clearly be absurd to pursue the process any further by working towards target pronunciations of English for international use that were not comfortably intelligible to NSs.

4.2 A taxonomy of NNS phonological, phonetic and prosodic errors

Having targeted the areas in which I shall be looking for L1 transfer errors (with the term 'transfer' being used in the inclusive sense in which it was interpreted in the previous chapter), I will now move on to investigate what actually happens particularly in the context of NNS-NNS interaction. However, despite the fact that "non-native speakers outnumber native speakers, and that much of the use of English nowadays is between non-native speakers" (A. Brown 1991:46), the literature in this area largely documents errors and their communicative effects within NS-NNS interaction. This is all the more surprising in view of the fact that errors, particularly phonological and prosodic transfer errors, generate far more problems in NNS-NNS than in NS-NNS interaction, because of the additional factor of NNS receptive errors, including less confidence in their ability to use linguistic and extralinguistic contextual cues (see Chapter One). The gap in the literature will therefore be filled by data collected during the period of this research by means of field (classroom) observation, recordings and an experimental study. I will first discuss errors found to occur in NNS speech at the segmental (phonological and phonetic) level, and then those at the suprasegmental level, together with errors in which the two levels operate simultaneously and which therefore probably constitute the most serious threat to successful communication in ILT.

4.2.1 Segmental transfer errors and their effects

It has been widely argued for some years now that segmental errors have a rather less serious effect on the intelligibility of NNS speech than those involving suprasegmental features.⁸ Recently, however, Brazil has commented on the "interdependence" of the two levels of sounds and intonation, advocating that "the work students do in one area

⁸ See Cruttenden 1986, Kenworthy 1987, G. Brown 1990, A. Brown 1991, Bowen and Marks 1994, Dalton and Seidlhofer 1994, Daniels 1995.

supports and reinforces the work they do in the other" (1994:3). This seems to corroborate the view expressed above, that the most serious errors are those involving both levels; it also represents a significant shift in position from the more radical and commonly expressed view that "the suprasegmentals are more basic and contribute more to intelligibility and accent. They should therefore appear first in textbooks and be mastered first by learners" (A. Brown 1991:4).

In the light of all the evidence from recent research, it would be unwise to attempt to diminish in any way the claims that have been made regarding the essential role of suprasegmental features, and particularly of intonation, in the intelligibility of NNS pronunciation. Since it is the suprasegmentals that determine vowel reduction in stress-timed languages, they are indeed "basic" and essential for NS understanding. Nevertheless, Brazil's recommendation is timely, for we have been in danger, research-wise if not yet classroom-wise (though this is more by default - see below, p.69), of throwing the segmental baby out with the bathwater. Segmental features do not signal information structure, yet information structure cannot easily be signalled without them. Van Els and De Bot likewise stress the importance of the segmentals, arguing that "Only an investigation of the relative contribution of both segmental and suprasegmental aspects to a "foreign" accent can ultimately reveal the relevance of the latter" (1987:153). They also warn against applying directly to the classroom the findings of research that does not itself actually investigate language teaching. Thus, they contend, their own intonation experiment (see pp.81-82 below) should not be used as evidence to suggest that "better results may be attained in the teaching of pronunciation of a foreign language when in the early stages precedence is given to suprasegmentals over segmentals" (ibid.).

There is a further reason for reviewing current attitudes towards segmental errors, for it is possible that the relative weighting of the two levels of error is not the same in ILT as it is in NS/NNS interaction. At least three factors are involved here. First, as has already been discussed (see pp.10-11 above), is the tendency of NNSs "to stick too closely to the phonetic information" (G. Brown 1990:100; see also Berkovits 1980), that is, to process information with an emphasis on bottom-up rather than top-down processing. While the ideal solution to this problem involves training NNSs to make the same use of contextual cues as do NSs, this is unlikely to be the outcome for all but the most advanced learners. For the majority of learners, a more effective safeguard of NNS intelligibility in ILT is probably best provided by a reduction in the number of phonemic and phonetic errors of the types outlined in 4.1.

Second, but closely related to the previous point is the fact that NSs of English are 'programmed' to listen for prominent and to ignore non-prominent syllables. Indeed, Wells (1986) demonstrates that NSs respond systematically to up to four degrees of focus as relative importance. On the other hand, many NNSs come to the learning of English conditioned by their syllable-timed (or at least, less stress-timed) L1s to listen for segmentals which, in the majority of cases, by definition carry more importance than they do in English. While reduction of less important parts of the message is an aid to understanding for NSs, it therefore presents NNSs with comprehension problems. This may help to explain why, even at advanced stages of proficiency, learners seem reluctant to reduce vowels, and thus the number of prominent syllables: they may be aware that in ILT, such reduction could lead to reconstruction problems for their NNS receiver (see 3.3.1 above on the notion of recoverability).

Third, the tendency of phonemic and phonetic transfer errors to fall wide of an NS model in different directions in different ILs (see Chapter One), renders the NNS's job still more difficult, since interlocutors may use different (deviant) phonemic or phonetic realisations of the same L2 sound. For example, German-English speakers may substitute /v/ with /w/, while Spanish-English speakers are more likely to use the voiced bilabial continuant [β], a sound closer to /b/ than to /v/. Similarly, Korean and Mandarin speakers of English may produce /ɜ:/ as /ɔ:/, whereas Japanese-English speakers habitually substitute /ɑ:/. Thus, whereas the NS receiver has only to identify the NNS error with the correct L1 sound, the NNS receiver may also need to equate it with his own potential pronunciation of the sound, that is, to 'translate' the sound from the speaker's IL not only into L2 English but also into his own IL ('analysis by synthesis'). An extra processing stage is therefore involved. The problem may be further compounded where the form that results from such transfer of sounds constitutes a legitimate and frequent English word rather than a non-word (see below), particularly if the potential for a (different) word exists in both the IL varieties involved. This situation seems to occur relatively rarely in the case of /v/, for example, 'vest' may become both 'west' and 'best'. On the other hand there are a number of words in fairly frequent use containing the sound /ɜ:/ which become different words when substituted by either /ɔ:/ or /ɑ:/, for example, 'burn', 'fir'/'fur', 'firm', 'first' (non-rhotically), 'heard'/'herd', 'stir'.

NNSs from a wide range of proficiency levels including even interpreters⁹ seem, themselves, to feel quite strongly that individual sounds constitute their greatest pronunciation problem both receptively and productively, and tend to want to address

⁹ Lourdes Lecuona, personal communication.

them first as learners (Dalton and Seidlhofer 1994:143). As will be seen in the studies described in Chapter Seven, it is their sounds that they particularly claim to adjust in order to make their speech more comprehensible to an NNS interlocutor with a different IL (see p.185) and, moreover, their claim is generally well-supported by the empirical evidence that will be offered. It could, nevertheless, be argued that NNSs place undue emphasis on sounds because they are conscious of L1-L2 differences in this area, whereas prosodic features tend to operate below the level of consciousness. This situation is likely to be exacerbated because features such as intonation are rarely given the same full treatment as segmentals in the classroom, owing to teacher difficulty and lack of coherent teaching materials (see p.31). The acquisition of suprasegmentals is thus rarely brought into the open to be made a conscious learning process, so that even when learners are aware of L1-L2 intonational differences, they do not have the means at their disposal to effect improvements. They need specific training in order to produce (and perceive) length as well as pitch change on prominent syllables, to weaken non-prominent syllables, and to use nuclear stress contrastively: in other words, to crack the English intonation code (cf. Currie and Yule 1982, Faber 1986, Cruz-Ferreira 1989).

Having said all this, however, it seems not a little arrogant of researchers to tell NNSs categorically that they are wrong, that segmentals are not of any great importance to the intelligibility of their pronunciation. While we have some proof as to the importance of prosodic features, we have little or none as to the lack of importance of segmentals, particularly in the context of ILT.¹⁰ Apart from the fact that to an extent we should be prepared at the teaching level to provide learners with what they want (cf. Porter and Garvin 1989, Bowen and Marks 1994), we should perhaps retain an open mind on the subject: learners' instincts may in time prove justified, just as teachers' instincts regarding language transfer and the validity of contrastive analysis have now found support in second language acquisition research. Regardless of the final verdict on the relative weighting of segmental and suprasegmental errors, both macro categories are capable of producing all three possible outcomes of error: that is, an error can be recognised, but prove no hindrance to communication; an error can leave the judge in doubt as to the speaker's intended meaning; or, most dangerously, an error can pass unnoticed, but communicate something other than the speaker's intention (Davies 1985).

¹⁰ Anderson-Hsieh points out that up to the present time, only a very few studies have investigated the relative roles of segmentals and suprasegmentals in intelligibility, and that these have been "suggestive rather than strongly conclusive of the greater influence of suprasegmentals" (1995:17; emphasis in original).

The part played by habit formation was discussed in the previous chapter, where it was noted that L1 pronunciation habits are frequently transferred to a second or subsequent language. At the segmental level, muscular habits that have always operated to produce the sounds of the L1 are automatically activated in L2 production. Although learners often cope well with the articulation of L2 sounds when they have sufficient planning time to focus cognitively on them and thus exert control over them, as soon as they release this control in order to focus their attention on the content of their message, the old habits tend automatically to return. This situation continues until and unless sufficient practice of L2 sounds leads to the formation of new habits, which, for the majority of L2 learners will not occur throughout the entire L2 phonological system.

Sounds that are phonetically very different from those in the L1 are likely to prove the most difficult to produce initially, since the articulators must be activated in new ways. On the other hand, where there is any degree of similarity between L1 and L2 sounds, learners tend to identify the two (see p.54 on interlingual identifications) and thence to categorise the new sounds in terms of the old. Daniels therefore suggests that "In the mind of the L2 learner, the L2 may well be seen as a way not so much of representing reality as a way of re-representing L1" (1995:5). While the process of interlingual identification makes for greater ease of articulation at first, it ultimately holds the threat of fossilization, which may manifest itself simply in a foreign accent, but which may have implications for intelligibility, as in the Japanese phonetic approximations described on p.63. On the other hand, as G. Brown (1990:16) argues, "really exotic" sounds (i.e. those very different from L1 sounds) are likely to present few problems for perception (see also 2.2.3 and 3.4 above on the roles of similarity and difference in respectively language transfer in general and phonological transfer in particular).

In order to master an L2 sound, a learner has to acquire both physiological knowledge regarding its articulation and an understanding of its place in the phonological system to which it belongs. This involves not only the acquisition of sounds which do not exist in the L1 but also, more problematically, the recognition and ability to deal with the often complex overlap between the L1 and L2 systems. This complexity manifests itself in two major ways: first, two distinct phonemes in the learner's L1 may be reduced to allophonic status in English, e.g. /l/ and [ɭ] in Russian, and second, two or more allophones in the L1 may have full phonemic status in English, e.g. /n/, /m/ and /ɲ/ in Japanese. The latter situation is particularly troublesome, since learners may not be aware of any difference between the articulation of the sounds, much as the average native speaker of English is not aware that he articulates the phoneme /n/ in three different ways (viz. as a dental, alveolar and post-alveolar consonant in the words

'tenth', 'find' and 'range' respectively) depending on its phonetic environment, and would therefore have great difficulty in distinguishing them perceptively as phonemes of a second language.

In the previous hypothetical example, although production would also prove difficult prior to extensive instruction, it would almost certainly precede perception. Thus, we cannot assume that because learners are able to produce sound contrasts, they can necessarily discriminate aurally between them; indeed, the opposite is frequently true (for example, the often-cited Japanese-English discrimination problem with /l/ and /r/). Even for L1 learners of sound systems, there is evidence that the auditory level is not primary, so that "acoustic differences cannot be readily perceived until the corresponding articulatory gestures have been learnt" (Ladefoged 1967:167). Further problems commonly arise for learners both where two distinct phonemes of English are articulated phonetically very closely, for example, /p/ and /b/ in initial position (the main difference being that the former is aspirated while the latter is not), and where two or more phonetic realisations of one phoneme are articulated in very different ways, for example, clear /l/ and dark [ɫ].

One striking feature of the data which will be produced to support the categories of phonological and phonetic error described below is the fact that in the majority of cases, a clear context (linguistic, extra-linguistic or both) was available at the time the error was made. In spite of the presence of such a context, the errors frequently led to intelligibility problems for those students who did not share the speaker's L1. Those who spoke the same L1 as the producer of the error generally (but not always) found the errors intelligible, while after many years of exposure to the ILs involved, I nevertheless had some problems in understanding (see 8.1 for a discussion of the effects of exposure to accent on intelligibility).

Moving on to the segmental error types and examples themselves, we can categorise them conveniently into three main groupings: first, sound substitutions and confluations; second, consonant deletions with or without the insertion of a glottal stop; and third, additions (epenthesis). However, as was explained at some length above, substitutions and confluations involving vowel quality are seldom considered important for intelligibility as compared with consonant and vowel quantity errors. Again, although epenthesis is technically an error, it will rarely be considered one here, since it is more likely to contribute towards than to detract from intelligibility,¹¹ as compared with

¹¹ This is indeed borne out by the data in Chapter Seven. However, the strong claim regarding vowel substitutions not involving length may need some revision (see p.198).

consonant deletion, which usually has the reverse effect. Errors involving substitution and conflation tend to be caused by the kinds of phonemic and articulatory difficulties described in the earlier part of this section; errors involving consonant deletion, on the other hand, are closely connected with differences in permitted syllable structure between the L1 and English (see 3.3.1). An intelligibility problem in either case may result from a unique error source, that is, the mispronunciation of one sound within one word or, more commonly, from multiple segmental mispronunciations, either within a single word or involving consecutive words, usually part of the same word group.

Looking first at errors involving sound substitutions within single words, the outcome often depends on whether or not a substitution results in a non-word. For example, the day after his driving test, a Korean student came into class and said "I pailed". On a different occasion, the same student asked another a question which sounded like "Do you want a copy?" In the former type of situation, where the error 'pailed' is a non-word,¹² a NS would (and did) immediately recognise that an error had occurred and would probably be able to make the necessary mental adjustment in order to interpret the word correctly. NNSs, on the other hand may, and indeed did on this occasion, have more of a problem. While they would be aware that they had not understood, they may not have sufficient L2 lexical knowledge to appreciate the non-word status of 'pailed', and therefore to search their mental lexicons for viable alternatives. More problematic, though, is the second example, where both NS and NNS receiver could simply misunderstand the message (in this case, a 'coffee' rather than a 'photocopy' was being offered). Again, however, the NS receiver has the advantage, since he is more likely than the NNS to make use of contextual cues in arriving at an interpretation. In fact, even when the context is manifestly clear, NNSs seem more likely to place their trust in a conflicting acoustic signal. This last point is demonstrated very clearly by an exchange in the first study in Chapter Seven (see Appendix C, p.235) between two upper-intermediate/low-advanced level students, one Swiss-German and the other Japanese, in which the latter was describing a picture of a house from a set of six such pictures and the former was trying to guess which of the six was being described. Despite the presence of the context in picture form, when the Japanese student referred to a /gleɪ/ house, the Swiss-German interpreted her word as 'clay' and was baffled, as there were no clay houses among the pictures (though there was a grey house).

Even where certain errors made in isolation would not normally lead to non-understanding, when combined with others within the same word, the combination frequently causes too much noise in the channel. For example, as has been argued

¹² In fact the homophone 'paled' is also possible, although unlikely in this context.

above, the substitution of /t/ for /θ/ and the addition of word-final schwa (schwa paragoge) rarely cause problems of understanding for a recipient. However, during a recorded discussion of crime and punishment between a Korean and a Taiwanese student of English (the Taiwanese student being bilingual in Mandarin and Taiwanese), the Korean pronounced the word 'cartheft' as /kɑ:'tɛpətə/. Although when listening to the tape, I was unable to understand the word initially, it became clear as soon as I had consulted the accompanying material (available as prompts to both students during their discussion), in which a number of crimes were listed in writing and shown in picture form. On the other hand, despite the presence of these contextual cues, the Taiwanese student appeared on tape to be completely unable to grasp the meaning (she admitted as much in a follow-up interview) and simply twice repeated her interlocutor's word with the same erroneous pronunciation.¹³

It should be pointed out that the very extensive use of epenthesis as a means of cluster simplification is not typical of all Korean speakers of English, but relates in part to a speaker's dialect (Barbara Bradford, personal communication). Moreover, while Korean is predominantly an open-syllable language, its syllable structure is highly complex, particularly relating to final consonants which, along with two-syllable consonant clusters, are permitted under certain circumstances. Depending on whether a vowel or consonant follows a word-final consonant/consonant cluster at the beginning of the next word, deletion or epenthesis may occur, although the former is the more common strategy of the two. Many Korean speakers of English therefore employ a mixture of these two strategies to simplify clusters and to open up word-final syllables in English, though with deletion tending to play the predominant role.¹⁴ Although he also employed both strategies, the subject under discussion made more frequent use of epenthesis, mainly in the form of schwa paragoge. His use of the latter may have been connected with his relatively advanced level of English proficiency.¹⁵ A further factor may have been the influence of Japanese or Japanese-English. The subject had been learning Japanese during the previous few years and, at the time of the data collection, was spending a considerable amount of time in the company of Japanese students, both inside the classroom, where he was daily exposed to Japanese-English and outside, where he often communicated with them in their L1.

¹³ I may therefore have to revise my conclusions regarding epenthesis: it appears to cause problems of understanding when it follows a deviant phoneme, as it gives extra prominence to the latter.

¹⁴ Information provided by a Korean NS informant; cf. also Tarone 1980.

¹⁵ See 3.3.1 on the relationship between L2 use of consonant deletion and epenthesis, and the notion of recoverability.

Although further discussion is beyond the scope of this work, one aspect of this Korean subject's English may warrant future research. Many students and teachers alike fear that students in multilingual classrooms will acquire each other's errors (see 8.1). In my own experience, this is extremely unlikely and has, indeed, only occurred once (a Japanese student acquired deviant features of French-English pronunciation) in a very specific and possibly unique set of circumstances. The fact that this Korean speaker of English may have acquired the one feature of Japanese which makes Japanese-English more intelligible, while apparently ignoring those features which have the reverse effect, suggests that students may acquire only the features of other ILs that they perceive (whether consciously or subconsciously) as having the potential to improve their L2 intelligibility. If this is so, it bears some similarity to the process of 'borrowing transfer' discussed on p.24, where intelligibility was proposed as one important motivation for the phenomenon of L2 influence on a speaker's L1 use. In the present case, however, it would be difficult to determine whether the Korean subject was influenced by L1 Japanese, L2 Japanese-English or a mixture of the two. Future research should therefore focus on subjects who have not learnt the underlying L1 concerned, but only had classroom exposure to the IL.

Returning to segmental errors, potentially still more problematical for intelligibility is a word group containing several segmental errors which, with each individual error further compounding the problem, may be rendered totally incomprehensible to both NS and NNS interlocutors. For example, a Japanese student giving a short presentation on European Union finished with a humorous, unprepared one-liner that sounded very much like "Don lies a fizz off score". Despite many years of exposure to Japanese-English,¹⁶ I did not understand the sentence until it had been repeated four times. On the other hand, one Japanese student in the group understood immediately, while the others needed only a single repetition, thus supporting the findings of the pilot study in Chapter One on the intelligibility of one's fellow-L1 speakers in a second language.¹⁷ However, the other NNSs were completely mystified until the sentence had been 'translated' for them, into "Don't rise (i.e. raise) the fees of school (i.e. school fees)". This is, of course, an extreme example, with a pronunciation error, or errors, in every word, not to mention the grammar errors (which, interestingly, rarely seem to cause problems of understanding in ILT: the students all understood "Don't rise the fees of school' before work had begun on correcting the faulty grammar). The errors in this example involved a mixture of consonant substitution, reduction in vowel length,

¹⁶ Though probably because the topic of this sentence had only a tenuous link with what had gone before, so that I was denied contextual help and, like the NNS students, was forced to rely on the acoustic signal alone.

¹⁷ See also the references to exposure to and familiarity with different IL accents in Chapter Eight.

and phonetic approximation: "don't" was pronounced with a short, nasalised [ɔ̃] and deletion of /nt/; in "rise" a /l/ was substituted for /r/; "fees" and "school" lost their vowel length (while the vowel of "school" was also changed in quality from /u:/ to [ɔ]) and the final /l/ was deleted; "of" was not reduced; and because so much else was in doubt, the substitution of /θ/ with /z/ in "the" also caused an intelligibility problem.

The previous example contains an instance of a phonetic approximation which was difficult to interpret. As was discussed earlier in the chapter, the majority of phonetic approximations lead to foreign accent rather than unintelligibility and can therefore be ignored unless native-like competence is the goal. On the other hand, in a small number of cases, phonetic L1 transfer may cause unintelligibility as, indeed, happened in the example above, and such cases therefore need to be identified and eliminated.

Moreover, such phonetic errors seem to cause more of a problem for NNS than for NS receivers. This is because NSs have a wider range of awareness of the available options than do NNSs, and are therefore better able to categorise different phonetic realisations as belonging to the same phoneme, whereas NNSs tend to hear phonetic differences as phonemic (see Crystal 1987:145). Although this phenomenon appears to be less of an issue than phonemic substitution in the ILT data, several comprehension difficulties were caused, for example, by approximations of word-final /n/ by Japanese speakers (as above), and by Spanish-English approximations of /b/ and /v/, such as "Will you book the table?" in which "book" was pronounced as [βʊk] and "table" as [teɪβl].

Turning our attention to NNS ways of simplifying syllable structure, however, we find a situation far more potentially damaging to ILT. The previous chapter discussed in some detail the motivations for such simplification, in particular its relationship with the structure of L1 syllables and the universal preference for the CV open-syllable pattern. It was also pointed out that speakers of CV languages select one of two ways to simplify a non-CV second language: consonant deletion (with or without the insertion of a glottal stop) or epenthesis. While some learners use a mixture of these two strategies, possibly depending on their degree of proficiency in the L2 (see p.73 above), the majority opt for one or the other, depending on the structure of L1 syllables.

NSs of English simplify syllables by means of the process of elision, which bears some similarity to that of consonant deletion. However, the similarity is often superficial, for while elision is a highly rule-governed process (cf. G. Brown 1990:76), consonant deletion is also strictly constrained, but by the rules of the NNS's L1 rather than those of L2 English. Whereas epenthesis increases rather than decreases

intelligibility, as is borne out by every occurrence of this strategy in the data except the example of 'cartheft' cited above, (where other errors were undoubtedly more salient), consonant deletion has exactly the reverse effect. Even in the presence of strong contextual cues, such as the availability of the problem words in written form, and the framework of a clear, familiar topic, the majority of deletions in the present data resulted in non-understanding for all recipients, whether NS or NNS. This was even true on some occasions for receivers whose own L1s employ the strategy of deletion, for example, Mandarin, Taiwanese and Korean speakers. Similar findings result from Suenobo et al's (1992) study of the relative effects errors of consonant deletion, substitution and epenthesis by Japanese speakers of English on NS listeners. While consonant deletion was found to cause the highest rate of misperception, epenthesis led to the highest rate of perception and in context was actually found to increase intelligibility, such findings lending support to Gimson's frequently repeated claim that it is consonants rather than vowels which carry the message at the segmental level.

Returning to the present data, where deletion occurred in isolation in word-final position, it seemed to have a slightly less serious effect, particularly if it was substituted by a glottal stop. This type of error was made frequently with final /n/, /nd/ and /nt/, even before a following vowel sound, by Taiwanese learners, for example, "I don't agree", where "don't" was pronounced [dɔʔ], "kind of" pronounced [kɛʔɔv], and "long time ago" where "time" became [tɛʔ]. On the other hand, deletion was more likely to cause a comprehension problem in word-initial position, even where it was the only error, possibly because a glottal stop was rarely if ever used in this environment to signal the loss of a sound. For example, the initial cluster /pr/ was often simplified to /p/ in words such as 'protect' and 'prejudice'. When there was more than one such error within a word or word group, or when errors of deletion combined with other categories of error, there were always serious repercussions for understanding. For example, after being shown a film of the Peking Opera on video as part of a classroom presentation, a Japanese student asked the Taiwanese presenter whether the opera was based on a true story. The latter replied that it was just [fɛʔʃɔ], and despite the fact that the Japanese student knew the word 'fiction', she was unable to interpret the word thus simplified by medial and final deletion and merely echoed it as [fɛʔʃɔ]. Again, in a discussion of students' favourite television programmes, even though the words "children's programmes" were written on the whiteboard, they were rendered completely incomprehensible through being pronounced [ʃʊreʔ pɔgwɛʔ]. As in many of the previous examples, I was able to interpret the deviant pronunciation well ahead of those students who did not share the speaker's L1 in part, undoubtedly,

because of prior exposure to such IL errors, but possibly also because the process of interpretation was not complicated by the cognitive presence of a second IL (see p.68).

The view that "Most segmental errors, though noticeable, do not interfere with communication" (Daniels 1995:8) is thus something of an overstatement, for as has been demonstrated above, segmental transfer errors may indeed prove highly detrimental to successful communication in English, particularly in ILT. However, suprasegmental errors hold a similar, if not greater potential to do the same, and it is therefore errors belonging to the latter category that we consider next.

4.2.2 Suprasegmental transfer errors and their effects

In this section, I will discuss the types of errors that NNSs make in the areas of word stress, rhythm and intonation. These are the areas that most researchers consider to have the greatest implications for intelligibility. For example, having dismissed segmental errors, Daniels goes on to argue that "The first and alas, often neglected priority should be to supply learners of English with 10 general and powerful stress rules, because it is at the level of word stress that the errors most damaging to comprehensibility occur" (ibid.). However, despite Daniels' fighting words, very little research appears to have been conducted on NNS wordstress errors and their effects on communication, as compared with that in the other suprasegmental areas. On the other hand, pronunciation teaching manuals make frequent reference to the need for correct wordstress placement in order to preserve intelligibility. None that I am aware of, though, provides "10 powerful rules of (word)stress", probably because many of these rules have multiple exceptions and/or are too complex for mental storage by students and teachers alike (i.e. they are not 'portable' in Krashen's sense of the word). This complexity is particularly true of the rules of so-called 'simple' wordstress.

Nevertheless, wordstress is highly rule-governed and NNSs have problems in acquiring these rules, particularly where those of the L1 are both different and less complex, and thus less marked. This is the case for L1s such as Finnish, Polish and Spanish, which have fixed or relatively fixed wordstress. There is also a problem with cognates and 'false friends', where the L1 syllable and stress pattern is likely to be applied in the L2. For example, as noted on p.26 above, many Portuguese speakers of English pronounce the word 'television' with five syllables of which they stress the final one. This is a clear illustration of the differential effects of similarity on NNS (reading) comprehension and (oral) production (see 2.2.3), and at the level of production may lead to serious intelligibility problems for a NS (and possibly another NNS) receiver.

A further NNS difficulty with English wordstress arises from the differing L1 cues that are used in signalling it. NS English speakers appear to make rather greater use of vowel duration than the majority of other L1s, who tend to rely on pitch change and, to a much lesser extent, loudness (cf. Dalton and Seidlhofer 1994:33-34). NS English also involves far more weakening of unstressed syllables than the majority of other L1s except European Portuguese, many of which make only a small distinction between stressed and unstressed syllables. Thus, although a NNS may place wordstress correctly, it may not be perceived as such by a NS receiver, who is accustomed to the acoustic cues of length and weakness in addition to that of pitch change.

The importance of correct wordstress placement for NS listeners is borne out by recent research (cf. Kenworthy 1987, G. Brown 1990, Dalton and Seidlhofer 1994), which suggests that NS English speakers from childhood onwards identify words in the first place through their stress patterns, and are therefore thrown badly off course in interpreting messages containing words with misplaced stress. G. Brown illustrates this point with an example in which her "instantly preferred interpretation was one that held the stress pattern that had been produced" (by a NNS) rather than one which made sense in the context (op.cit:51). It is possible, however that wordstress errors made in context, and in the absence of other error types, are not automatically damaging for NS listeners. Television newsreaders have a habit of deliberately misplacing wordstress, often by means of fronting, possibly in order to retain the listener's attention, and although the listener is surprised, intelligibility is rarely, if ever, affected. Again, wordstress placement also differs quite widely among NS varieties of English, most notably RP and General American, with no great subsequent loss of intelligibility (though see the 'Caribbean' example on p.80 below). Furthermore, stress patterns may change over time with the dictates of fashion while, for a small group of words such as 'controversy' and 'kilometre', two distinct stress patterns are currently and intelligibly in NS use. All this suggests that NSs are to an extent capable of a degree of flexibility in this area.

The effects of such errors on NNS listeners are at present even less clear-cut. As was discussed in the previous section on segmental errors, NNSs are far less likely than NSs to bring contextual cues to bear on their interpretation of difficult pronunciations, and this no doubt extends to their attempts to interpret words with faulty stress placement. However, in the present data, the majority of errors that led to non or misunderstanding in ILT occurred at the levels of sounds, syllable structure, nuclear placement, or various combinations of these. Only rarely did wordstress errors alone

present difficulties, although they sometimes compounded the effects of other errors. Interestingly, one of the few solely wordstress errors to cause an intelligibility problem involved me, a native speaker, as listener in an exchange which lacked any contextual information. A Turkish student, apropos of nothing that had preceded in the conversation, asked for the opposite of the word 'mature', pronouncing the word with the stress on the first syllable. My interpretation was therefore 'macho', (having assumed an approximation of the final /əʊ/ diphthong), and my reply, therefore, that there is no direct opposite. The misunderstanding was only resolved when the student wrote the word down. On the other hand, the data contain no examples of errors in NNS-NNS interaction involving wordstress alone leading to unintelligibility, (for example, 'resort' and 'Korean' stressed on the first syllable) and there are even examples of such errors being corrected by the NNS recipient (such as 'sunshine' stressed on the second syllable).

The few wordstress errors that did lead to intelligibility problems in the ILT data occurred in tandem with other error types. For example, a French learner of English asked a Hungarian learner, "How do you say hopeless in French?", but pronounced "hopeless" with the stress on the second syllable, deletion of initial /h/ and shortening of /əʊ/ to /ɒ/. Likewise, in a conversation about wasting time, an Italian speaker of English asked a Japanese student, "Do you waste your time alone?", pronouncing "alone" as /elɒn/ with the stress on the first syllable. In these examples, it is difficult to assess the relative salience of the different error types for the listener. I suspect, though, that in the first case, the wordstress error would not have caused a problem had there not also been segmental errors, since the syllable 'less' is familiar in isolation as well as in suffix form. On the other hand, in the second case, where a normally completely reduced syllable is stressed, and also because of the knock-on effect on nuclear stress (and see p.80 below), the opposite may have obtained. Interestingly, in a third case, which occurred during a classroom exercise on connectives, the correctly pronounced word 'also' (by a Hindi speaker of English) was interpreted by a Brazilian student as 'although', presumably because this is how he would have produced the word as a result of L1 stress and sound transfer (and see p.64 for an example of the misinterpretation of a correctly produced /t/ as /θ/). More serious, however, were wordstress errors which occurred in combination with consonant deletion and which, in spite of contextual cues, rendered words totally unintelligible to all listeners, NS and NNS. For example, the words 'product' and 'expenditure' were produced by a Taiwanese speaker of English in a conversation about advertising, respectively with stress on the second syllable as [pɹɒ'dʌk], and with stress on the third syllable as [epeɹ'dɪʃɔ].

However, the most serious wordstress errors of all may be those which also affect nuclear placement, because these have the potential to affect the listener's ability to process entire chunks of the speaker's message. One such example is provided in the previous paragraph. Another was made by a Japanese speaker of English addressing a mixed-L1 group, who asked, "Does anyone know where is Caribbean?", with the stress on the second syllable of "Caribbean". No-one answered because no-one understood the question. The problem was not one of incorrect grammar (these different-L1 students habitually made the same mistakes with embedded questions and article omission), but of wordstress affecting nuclear placement.¹⁸ On a second occasion, a Korean student defined the idiom 'to bite off more than you can chew' as "to undertake more than you can fulfil", pronouncing the final word as /pʊlɪpɪl/. Thus, the nuclear syllable was misplaced (PULpil) and, further, contained a segmental error. Although the Japanese receivers had this sentence written down on a worksheet, they were unable to identify it. A further example of this phenomenon occurred in an exchange between an Iranian and a Japanese student. The latter had been speaking about advertising, and the former asked him "Do you think the advertisers exaggerate subject about something that is UNreal?" Although the question contains a large number of grammatical errors, the Japanese listener understood the meaning once the stress on "unreal" had been corrected. Spoor and Vaughan-Rees (1990) make the same point, though largely hypothetically, in their discussion of the way in which misplaced stress on complex technological words and its knock-on effect on nuclear position adversely affects the intelligibility of the speech of multilingual groups of business English students.

We turn now to the English rhythm and intonation system and consider first the concept of stress-timing. As has already been argued, the original claim for the difference between stress-timed and syllable-timed languages is now thought by many to be too strong, and the two are probably better represented as a continuum rather than as polar opposites (cf. Lanham 1989, McCarthy 1991:92-94, Dalton and Seidlhofer 1994:40-42). Strict stress-timing is therefore likely to operate only in very regular, formal speech (Roach 1983:102-104), for which Ladefoged's earlier words no doubt still hold true: "after hearing the first two or three stresses the listener can approximately predict the moment of occurrence of the subsequent stresses; so the times when maximum information will occur, and hence the times when the maximum attention will be needed, are to some extent known in advance" (1967:159). For less formal speech, the stress-timed rhythm is likely to be less rigidly held together, broken up by hesitations,

¹⁸ I have subsequently heard this pronunciation by a NS of American English.

false starts, interruptions and so on, and thence becomes a "tendency" (Ladefoged 1982:224).

The NS English system of rhythm and intonation, with its alternation of strong and weak syllables and the extra prominence afforded to nuclear stress is, nevertheless, common to all NS varieties of English, operates regardless of the formality of the speech situation and acts as "the guide to the structure of information in the spoken message" (G. Brown 1990:43). The effect is therefore quite different from that of more syllable-timed languages, where important content words are not necessarily highlighted by stress and less important words reduced. This is clearly borne out by Nelson's (1982) investigation of the differences between syllable-timed Hindi-English and stress-timed American English, in which he finds that transfer of the former onto the latter leads to the placement of stress on a syllable next to the one where it is expected (by a NS) and the lack of unstressed vowel reduction. He concludes that rhythm is likely to have a significant effect on the intelligibility of NNS varieties of English. Wenk (1986) likewise observes the transfer of the L1 rhythmic patterns of French learners of English onto their L2 (see p.42 above). He suggests that learners only overcome such L1 influence at an advanced stage of proficiency, a view that is also expressed by Cruz-Ferreira, who refers to intonation as "the last "stronghold" of a foreign accent" (1989:24).

This latter claim is well-supported in the present data, where advanced students of English make frequent intonation errors, particularly with the placement of nuclear stress whether unmarked or contrastive, which they tend to place indiscriminately at or near the ends of sentences. For example, a Japanese student talking about the students in her previous class, said "There were Spanish, German, French and I could tell the difference between THEM" (erroneous nuclear syllable in capitals). Another Japanese student discussing her new class said "They aren't all Japanese - we've got a lot of foreign STUDents" (and see below, p.84ff, for a more detailed discussion of NNS nuclear placement error). Both students in these examples had been in England for well over a year.

Moving on to tones, although tone universals undoubtedly exist (see Brown and Levinson 1987, for example pp.104-106), it seems that the use of tones is also to a fairly large extent language-specific. Van Els and De Bot (1987) demonstrate this in an experiment where they find that the ability of listeners to identify the L1s of various NNSs is significantly reduced when the latter's speech is monotonised. The avoidance of L1 tone transfer and the correct use of the English tone 'system' is therefore

considered essential by many materials writers, and references in the literature abound to the risk learners run of offending NSs (though not necessarily other NNSs) if they do not adhere to L2 politeness 'norms' in the use of tones.

These writers are generally referring to the so-called 'attitudinal' function of intonation (O'Connor and Arnold 1973, Roach 1983). However, the use of tones by NSs of English remains "elusive" (Bradford 1982:33-34), particularly in the 'attitudinal' area, and is usually inseparable from speaker and context. Apart from the pitch direction in a number of "intonational idioms" such as "You must be joking!" (Dalton and Seidlhofer 1994:45), it is therefore virtually impossible to provide cast-iron rules. This is evident even among experienced EFL teachers on training courses, where agreement rarely results from tasks such as asking certain trainees to utter the word 'yes' expressing, unknown to the others, tentativeness, boredom, enthusiasm, and so on. There are generally as many different interpretations as there are listeners. On the other hand, where tones have a grammatical function,¹⁹ there seems to be a much higher level of NS agreement as to interpretation (and a number of cross-linguistic universals, cf. p.65). However, regardless of the function of a particular tone, a surprising number of NSs, including EFL teachers and trainee teachers, although able to identify the nuclear syllable itself, are unable to perceive the direction in which its pitch moves. For all these reasons, tone will henceforth be disregarded in the discussion of NNS intonation error, except in so far as it is a feature of Brazil et al's 'discourse intonation'.

Although intonation universals undoubtedly exist owing to physiological restraints on the vocal apparatus, much intonation consists of highly stereotyped patterns of which L1 speakers are not aware (Nash 1967, Berkovits 1980). It is thus because intonation is both fleeting and operational at a subconscious level that NNSs are rarely aware of transferring their often very different L1 patterns to their English output. Meanwhile, although NSs cannot explain intonation errors, they respond to their effects (Bradford 1988, *Teacher's Book*:2), with the intonational message taking precedence over the lexical (Nash op.cit.); and in section 4.2.3, we will see that the same is often true of NNSs where nuclear placement (but probably not tone) is concerned.²⁰ It is in fact the area of nuclear placement that seems to present the greatest difficulty for NNSs and their NS and NNS receivers. Two functions of intonation are involved here, often referred to as its 'accentual' and 'discourse' functions (cf. Roach 1983). The first involves both the placing of the unmarked nucleus on the last content word and the more problematical placing of contrastive stress earlier in the tone unit. The second

¹⁹ Though see Cruttenden 1970 for the claim that intonation does not have a grammatical function at all.

²⁰ But see Berkovits 1980, who argues that NNSs ignore intonational cues if others are available.

concerns the way in which the placing of the nucleus coupled with the binary use of pitch direction signals new and shared information in the ongoing discourse (see below p.87).

However, NNS problems with the placement of nuclear stress are themselves related to a failure to divide the stream of speech into tone units, for if words are not divided into groups, it is then impossible "to single out the most important information within a group by means of pitch change" (Kaltenboeck 1994:17; see also Gumperz 1982:107, McCarthy 1991:108). By grouping words into such units, NS speakers indicate to their listeners which words should be interpreted together. This is achieved by means of the structure of the tone unit: it is normally bounded by pauses, and contains one nuclear syllable bearing what the speaker selects as the most important information,²¹ and an alternation of prominent and reduced syllables. The tone unit also tends to coincide with syntactic boundaries, so that misplacement of the nucleus within the tone unit can result in grammatical misinterpretation (Gumperz op.cit:110).

The claim for the tone unit as the primary structural component of English speech is offered support by recent research into NS use of formulaic expressions, which have come to be known by various terms, such as 'prefabricated routines and patterns' (Hakuta 1974), 'lexical sentence stems' (Pawley and Syder 1983), and 'lexical phrases' (Nattinger and DeCarrico 1992). This research demonstrates that a significant proportion of what NSs say is composed of ready-made, memorised chunks of language of varying degrees of fixedness.²² Although it is only very recently that firm links have been drawn between the intonation unit and the lexical phrase (see Seidlhofer and Dalton forthcoming), the usefulness of the lexical phrase for the teaching of intonation has previously been noted (Dalton and Seidlhofer 1994, Kaltenboeck 1994). Taxonomies of such phrases include many formulaic expressions which seem to coincide closely with tone units and which future research may prove to be 'lexico-intonational phrases', in terms of nuclear placement if not of tone (though see the reference to "intonational idioms" on p.82 above). Indeed, Gumperz (op.cit:107) describes the way in which prosody enables the speaker "to chunk the stream of talk" into "basic message units", resulting in "strings or sequences of lexical phrases, carrying more or less prominence in relation to other phrases in the same unit" in terms very reminiscent of (though generally predating) those used by the researchers into formulaic language.

²¹ Though see Brown, Currie and Kenworthy 1980 for evidence of tone units containing two nuclear syllables in informal speech.

²² See Widdowson 1990:92-96 for a concise account of the research.

The failure of NNSs to segment their speech into tone units results not only in problems with nuclear placement, but also in a lack of pauses which, for the listener creates a false sense of speed (Nash 1967, Van Els and De Bot 1987),²³ reduces the time available for the processing of information, and is therefore likely to be particularly harmful in ILT. For the speaker, it shortens the amount of time which can be used for planning (Brazil 1994, *Teachers' Book*:31, Francis 1995), and is in consequence likely to lead to non-fluent speech, with pauses occurring in unnatural places to facilitate the solving of linguistic problems rather than to serve the purpose of signalling information structure. Hewings (1990) points out, moreover, that where learners pause in unnatural places for the purpose of correcting their errors, they tend to start such corrections on a high key, thus using pitch in relation to the discontinuity rather than to the previous context (i.e. to signal new, given or contrastive information). He suggests, therefore, that foreign intonation derives more from the lack of fluency, itself the result of planning problems, than from the transfer of L1 intonation patterns.

As has already been argued, it is nuclear placement that causes the most serious suprasegmental problem for NNSs at the productive level. English is unusual both in that it has one of the most rigid word orders among the world's languages and that it allows free placement of stress within the intonation group (Creider 1979). Although some L1s share with English the phenomenon of moving nuclear stress to signal information focus including contrastive and new as opposed to old information (for example, German and Russian), many others achieve such focus through morphosyntactic means, e.g. word order, clefting and topic markers, and retain a fixed position for the nucleus, with a tendency to prefer the last noun in the L1 intonation group (Cruttenden 1986:146-150).

A number of studies have investigated the extent to which NNSs transfer L1 intonation patterns onto their English and the effects this has on their ability to use NS nuclear stress, and consequently on the intelligibility of their speech. Three of these studies will be discussed here. First, Wennerstrom (1994) investigates the use made of pitch to signal meaningful contrasts among L1 speakers of Spanish, Japanese, Thai and (American) English. She finds that while the English L1 speakers are consistent in their use of contrasts, all the L2 speakers tend to give equal prominence to items regardless of their importance in the information structure. They neither approach the degree of pitch increase produced by the NSs on new or contrastive information, nor do they reduce pitch to the same extent on redundant words. She concludes that on the one

²³ See also Vanderplank 1993 on perceived speed as a function of a high ratio of prominent to non-prominent syllables.

hand, the thread of their speech would therefore be difficult for NSs to follow, while on the other hand, these NNSs risk missing important aspects of the discourse structure of NSs.

In this study, the Thai subjects fare least well and the Spanish subjects the best. Wennerstrom accounts for this result by the fact that Thai intonation functions the most differently of the three from English (with pitch being used to signal lexical rather than discourse meaning), while Spanish intonation has certain similarities to that of English. She also points out the part played by exposure to L1 intonation: the Thais had been in America for only two or three weeks while the Spaniards had been there for over a month, and prior to their visit had been exposed to American English via the media. Wennerstrom therefore suggests that longitudinal studies should be conducted to investigate how NNS intonation becomes more nativelike over time. However, as regards marked, and particularly contrastive, nuclear placement, exposure is more likely to benefit reception than production in the short term. Indeed, it appears to take well in excess of a year to filter through to the production of speakers of L1s intonationally distant from English (see the Japanese examples on p.80 above) and only a little less for those whose L1s are closer. On the other hand, receptive competence of marked nuclear placement seems to be reasonably well acquired after a relatively short period of exposure (Bradford 1982; and see 4.2.3 below). This is plausible when one considers that the acquisition of productive intonation competence is a lengthy process in the L1 (Cruttenden 1986:173-174), whereas receptively it seems to be acquired very much more quickly.

In the second study, Lanham (1989) investigates communication problems between speakers of South African Black English (SABE), whose mother tongue is one of the group of Bantu languages, and speakers of South African English (SAE). Bantu phonological rules, and particularly those governing intonation, are very different from those of the latter, and because many speakers of SABE are taught English by NNS, there is inevitably a high degree of transfer. Lanham contrasts the heavy SAE exploitation of referring tones on nuclear syllables (see discussion of discourse intonation below) with the scant use of these tones made by SABE speakers, who reserve them for the ends of questions in spontaneous speech. This fact, along with differences in the ways word groups are recognised, the selection of prominent syllables, and the degree of distinction between stressed and unstressed syllables, leads Lanham to propose that SABE intonation does not serve a discourse function for NSs of English, and that the result is an inability for speakers of the two groups to negotiate interactive discourse successfully. A surprising result of Lanham's study is that the

SABE speakers found passages read aloud by speakers of SAE easier to understand than those read aloud by speakers of SABE. This is reminiscent of the Indian subjects in Smith and Bisazza's study (see p.13 above), though it is more easily accounted for in the latter study, since the Indian subjects had had more exposure to American than to Indian English in the teaching process.

In the oldest of the three studies, Nash (1967) investigates the use of contrastive stress of Spanish (Puerto-Rican) speakers of English and English speakers of Spanish at three different levels of L2 proficiency. She finds that the lowest level Spanish speakers of English use too little emphasis to signal contrasts, while the equivalent English speakers of Spanish use too much. The former therefore fail to give the necessary emphasis to make contrastive distinctions, while the latter apply more intensity than is appropriate in the context. Nash argues that accentual interference has wide-reaching repercussions on intelligibility because it is concerned not only with the identification of meaning-bearing units, but with the identification of meanings themselves. To this extent, context provides less help than it does with segmental phonology because the intonation pattern is, itself, part of that context. Nash also emphasises the cumulative effect of such accentual interference, in which the hearer, unable to 'tune in' to the speaker, cannot relate the meaning of one utterance to that of the next, with the result that the utterances become increasingly incoherent and, ultimately, the speaker is judged as unintelligible or the message is misinterpreted.

Nash makes a number of points that are of interest in the present context. First, in her study, she finds that discrepancies between the most and least proficient Spanish speakers of English are not as great as those between the least proficient and those with a slight L1 accent. This is particularly true of the segmentation of the stream of speech into tone units, and seems to result from the fact that the Spanish speakers of English with a slight L1 accent exaggerate those features of English which they think will make them more intelligible, while the speakers with the heaviest and lightest accents do not. Presumably the former are not sufficiently competent in the L2 to attempt such reduction in the transfer of L1 intonation patterns, while the latter feel it unnecessary to exaggerate, since they are already easily intelligible.²⁴ Second, Nash argues that on the one hand, the requirements of intelligibility in the second language are reduced if both speakers share the same first language, while on the other hand, where speakers come

²⁴ This same interplay between the demands of intelligibility and NNS proficiency level was noticed in the data collected for the studies described in Chapter Seven below. It appeared that only the most advanced students were able to suppress transfer of their L1 nuclear stress patterns as opposed to features of their L1 segmental phonology. However, this conclusion must remain tentative, as the present studies did not focus on intonation.

from different L1s, exposure to one another's imperfect speech will lead to the modifying of the perceptual apparatus and subsequently increased intelligibility. Both these claims are supported by the Chapter Seven studies. Finally, Nash also finds evidence of 'borrowing transfer' (see pp.18 and 24 above), in that the influence of L2 English is found in speakers' L1 Spanish and has the effect of making their Spanish more intelligible (though she does not specify whether this is to Spanish or English receivers).

In recent years, theories of discourse intonation have been developed by Brazil et al. from the work of Halliday and the Prague School (cf. Halliday 1970, Brazil et al. 1980, Coulthard and Montgomery (eds.) 1982, particularly Chapter 1, and Brazil 1985). Discourse intonation involves the placing of nuclear stress on the syllable within the tone group that the speakers sees as the most salient in terms of the wider context of the utterance. In so doing, the speaker selects either a 'proclaiming' or a 'referring' tone, respectively a falling tone to signal information that is potentially new from the listener's point of view and a fall-rise to signal information that is in some way shared or 'given'. According to theories of discourse intonation, all new items are represented by focus, but not all focal items are new items (Taglicht 1984:41). Because of its relationship with parts of the utterance not in the immediate linguistic vicinity, a misplaced or mis-pitched nucleus may affect meaning at the global level of the whole interaction. Such an error is probably the most difficult of all types of phonological and prosodic error to identify and locate, which may also explain why it has the potential to cause the greatest degree of miscommunication.

The present data contain a number of errors in nuclear placement both where the nucleus is automatically placed at the end of an intonation group (on either the last content word or indiscriminately on the last word), and where an attempt to use nuclear stress contrastively misfires. Some of the errors involve nuclear placement alone, while the majority incorporate a mixture of segmental error or wordstress error (see above, this section) and misplaced nuclear stress. As with the errors described in previous sections, non- and misunderstanding often occur in ILT and, occasionally in NS-NNS interaction, despite the presence of linguistic and/or extra-linguistic contextual information, though as was argued above, intonation is itself an essential part of the context.

The following examples of nuclear stress misplacement occurred during a classroom lesson (at upper intermediate level) on idiomatic language connected with the body. In each case, the misplaced nucleus (in capitals) was the only error, and resulted in non-

understanding and a request for repetition: "to put your foot in IT" (Japanese speaker), "to pull your finger OUT" (Brazilian-Portuguese speaker), "to be up to your neck in IT". On the other hand, where the final item was a noun, resulting in correct unmarked nuclear placement, there were no problems in understanding, for example, "to pull someone's LEG", "to have your heart in your MOUTH". Further such errors, all made by Japanese students during presentations are: "Richard Branson wants to expand his COMPANIES, but he recently sold his record COMpany", "Before reading the books I opposed the jury SYStem, but now I am in favour of IT", and "a dirty tricks camPAIGN and allegations surrounding IT". However, in the latter cases, the receivers were also Japanese, and the errors therefore did not present comprehension problems.

Attempts to use contrastive stress, though encouraging as a sign that the system is beginning to penetrate, are potentially just as serious for communication, as they frequently go awry. For example, in a lesson on phrasal verbs (at advanced level), students were giving example sentences containing such verbs to partners, who then attempted to deduce the meaning. A Japanese student read the following to her Thai partner: "How exactly did you come BY this painting?". The latter was completely mystified, despite the fact that only one word contained a single error, and that all the previous examples had included the verb 'come'. Again, in a conversation which took place in the classroom, but was not a formal part of the lesson, a group of students and I were making arrangements for a meal in a local restaurant. A Catalan student asked "Will you BOOK the table?" (see p.75 for the pronunciation of /b/ in the words 'book' and 'table'), and until she rephrased and repeated it as "You're going to book the TAbble?", neither the other students nor I understood her meaning.

The previous example involved both segmental and suprasegmental errors, specifically a combination of phonetically deviant sounds and misplaced contrastive stress. This seems to be a particularly potent combination for unintelligibility. In a recorded conversation between four students, one Brazilian, another Swiss-French, a third Colombian and a fourth Hungarian, the latter asked "Have you got a blue VUN?" The other three echoed the words 'blue vun' and 'vun' a number of times, until the Hungarian held up a blue pen and said "Blue vun like this", whereupon the other three laughed. The point here is that these students had worked and socialised together for three months and had therefore had considerable exposure to each other's varieties of English. In addition, the context of this exchange could have been expected to provide them with clues to the meaning, since they were sitting round a table with paper and coloured pens, making grammar materials with which to decorate the classroom wall. I suspect that the segmental error alone would have presented them with no problem, but

that it was the fact that it occurred on the syllable that was presented as carrying the most important information, i.e. the nuclear syllable, that resulted in the destruction of the message. Pirt provides a similar example where Italian speakers of English negotiate the position of a yellow pencil. The latter is described by one of the speakers as a "yellow PENCil", thus with a failure to use nuclear stress contrastively. Pirt points out, however, that the tendency to place the nucleus towards the end of the unit makes sense in the speaker's L1, where the corresponding phrase would be 'matita GIALla'. She therefore suggests that speakers, rather than simply transferring L1 intonation patterns, have "difficulty in adjusting to a new linguistic paradigm", in that they fail to recognise the communicative value of prominence in English (1990:151).

Similar non-understanding seems to result where there are a number of segmental errors in conjunction with misplaced contrastive stress, even when the syllable wrongly presented as the nucleus is otherwise error-free. However, once the non-understanding has occurred, it is generally easier for interlocutors to clarify what was said where the segmental problem resides in a single word. One such example of a combination of different segmental errors with misplaced contrastive stress was heard during a social occasion in a conversation on smoking between a Taiwanese and a trilingual Swiss student of English. The former said "I smoke more than you DO", with errors in 'smoke', which was pronounced /zmɒk/, and in 'more', which he said as /mɔː/.²⁵ It took many repetitions before understanding was finally achieved.

As has already been mentioned, the number of production errors that NNSs still make in the area of contrastive stress at a stage when they are able to understand it if correctly produced, whether by a NS or another NNS, implies that receptive ability well precedes productive ability in this area. In the next section, we will consider an experiment carried out by the author, which investigates NNSs' receptive and productive competence in contrastive stress, and which compares their reception and production with that of NSs when listening to both NSs and to other NNSs.

4.2.3 *A study in contrastive stress*

The NNS group of subjects consisted of four EFL students, a Catalan, a German, an Italian and a Japanese. They were all studying in the same class, were of approximately the same age (early twenties) and linguistic ability (upper-intermediate/low-advanced), and had each had between two and three months' exposure to NS English models in this country. The NS group consisted of four EFL teachers who were of similar ages to

²⁵ He also produced 'than' in its strong form, /ðæn/, though it is doubtful whether this contributed to the intelligibility problem: see 3.3.1 on the notion of recoverability and p.68 and Jenkins (forthcoming) on weak forms in NNS English.

the NNS group, and none of whom had a strong regional accent. The eight subjects came from a variety of educational and occupational backgrounds and in each group, two were male and two female.

Four sets of sentences were prepared (see Appendix B). Each set consisted of five questions, and each of the five questions within a set began in the same way, but finished differently. To ensure that the subjects, particularly the NNSs, would understand the contexts of the sentences, a short explanatory text accompanied each one. Subjects were each randomly allocated one set of sentences; thus NNS1 and NS1 each had set one, NNS2 and NS2 each had set two, and so on. Every subject was recorded reading aloud his or her set of sentences, the NNSs having previously been helped where necessary with comprehension of lexis and context, but not with any aspect of pronunciation. After each subject had finished recording the five sentences, s/he was asked to circle which words, if any, s/he had intended to stress.

When all eight subjects had been recorded, a new tape was prepared, in which the second halves of the sentences were removed, thus leaving two sets of sentence stems, NS and NNS, each consisting of four groups of five lexically identical first halves. Within each set, the sentence halves were randomly arranged, rather than having each group of identical sentence stems together. These two sets of sentence stems were then played to all eight subjects at one sitting. They were asked to identify for each sentence stem its corresponding second half by selecting from a list containing all the second halves arranged in random order (see Appendix B).

Table 2 Identification of nuclear stress by NNS and NS listeners²⁶

	NNS LISTENERS				NS LISTENERS			
	A	B	C	D	A	B	C	D
SET 1 (NS)	7	7	11	11	20	18	17	19
Totals: NNS 36 NS 74								
SET 2 (NNS)	2	7	5	7	6	5	2	5
Totals: NNS 21 NS 18								
NNS Listeners: A = Catalan, B = Italian, C = Japanese, D = German								

²⁶ Each figure on the table represents the listener's score out of a possible total of 20 (i.e. the 4 x 5 NS sentence stems making up Set 1, and the 4 x 5 NNS sentence stems making up Set 2). The NNS and NS totals on the left hand side of the table indicate the aggregate scores for each of the two groups of subjects.

As anticipated, the NS group was highly accurate in predicting the second halves of the sentences in the NS set of recordings, but highly inaccurate in doing so with the NNS set. The NNS group was also more successful with the NS than with the NNS set, though the difference was not quite as great as had been expected, and one subject scored the same low mark for both sets (see Table 2 above). This may have been the result of methodological problems, in particular that some members of the NS group had spoken very quickly on their recordings. There was also the suggestion that the NNS subjects were trying to 'use up' all five options for each sentence stem, rather than basing their decisions entirely on what they heard (although they had been told that some first halves could appear twice or not at all). Clearly, some distractors should have been included.

Where the NNS subjects were successful in identifying NNS second halves, this tended to coincide with sentences where the nucleus naturally fell and had been correctly placed on the last lexical item, whereas they were able to identify some second halves in the NS set where the nucleus had been (correctly) used contrastively, and thus placed on other items. Two of the NNS subjects, the German and the Italian, were particularly successful in identifying the second halves of their own sentence stems, even though in the case of the Italian, the nucleus had apparently been placed on the final lexical item every time. However, his success suggests that he may have been signalling the nuclear contrast in other ways than by pitch change, duration and (to a lesser extent) loudness, for example, he tended to hesitate before nuclear syllables that were not intonationally signalled. This suggestion gains further support from the fact that the Italian subject completed the pencil and paper test correctly. The same was true of the Catalan subject, who appeared not to signal any contrastive stress on the recording, but who was, like the Italian subject convinced that she had done so and, like him circled the correct words in the pencil and paper test. Still further evidence that these two subjects may have indicated contrastive nuclear stress in other ways comes from the fact that they were considerably weaker than the other two subjects at identifying the NSs' contrastive syllables.

None of the NNS group correctly identified any of the second halves that matched the Japanese subject's sentence stems, including the Japanese subject herself. She explained afterwards that she had only intended to stress the contrastive item in the second half of each sentence, and had not realised that there was any need to stress an item in the first half. Of the four NNS subjects, only the German was able to produce contrastive nuclear stress like a native English speaker, which he did in three of his five sentences. In one sentence, he put it on the wrong syllable and in another, he only

produced it in the second half. His success rate is likely to reflect the fact that contrastive stress is used in German (cf. Cruttenden 1986:148), though his mistakes suggest that further instruction is required in order that any similarities of use between the two languages be made explicit (see the following paragraph).

Although statistically insignificant, these results do suggest that in their short time in England, the NNS subjects have developed greater competence in their ability to perceive than to produce contrastive stress. As was stated above, their relatively low scores in identifying contrastive stress in the NS data may have had some connection with the speed of the NSs' speech rather than being entirely due to the NNS subjects' poor receptive competence. However, having said that, it is still clear that in every case, these NNSs had not yet received sufficient exposure to the language to be really confident at a receptive level in the area of contrastive stress, and were nowhere near approaching a competent level of production. As both McCarthy (1991) and Cruttenden (1986) point out, since the L1 acquisition of intonation is a such a long-term process, it needs to be taught to NNSs by means of analysis and practice if they are to be aware of nuances of meaning, and to be able to use L2 intonation patterns correctly rather than erroneously transferring those of their L1. Instruction is also needed where, as in the case of German, the L1 and L2 show similarities since, unless this similarity is made explicit, it is unlikely to be transferred in marked cases such as that of contrastive stress (see p.23 on Kellerman's 'breken' study for further discussion of this point). Indeed, Cruz-Ferreira places "special emphasis" on her view that "intonation patterns of any L2 cannot be adequately mastered by the learner otherwise than by systematic teaching" (1989:24).

Although replication with methodological improvements would be necessary to allow us to generalise from this study (including better NS recordings and the use of non-teachers), a number of possible trends emerge. First, as has been discussed above, NNSs seem to develop receptive competence in contrastive stress well ahead of their productive competence. Since nuclear stress is so central to meaning in English, this has serious implications for ILT, as is demonstrated by the second point, which is that the NNS subjects had rather more difficulty in interpreting their fellow NNSs' meaning than that of the NSs. A third point is the suggestion that some NNSs are indeed signalling contrastive stress in the correct place, but that it passes unnoticed by NS and NNS hearers alike because they are not doing it in the 'English' way, since they have not been taught how to.

4.3 Articulatory settings and voice quality

In this brief, final section, I will discuss these more holistic aspects of pronunciation. Although closely linked to the segmental and suprasegmental error categories already discussed in this chapter, they do not fit neatly into either and yet apply to both. Moreover, as with the latter two categories, differences between the native and target languages in these areas may lead to error and potential intelligibility problems for the receiver.

As long ago as 1964, Honikman pointed out that a NNS cannot completely master a second language while retaining the articulatory settings²⁷ of his first language. Since that time, a small number of other pronunciation writers have claimed the wisdom of starting holistically from setting and thence moving on to work on individual sounds. O'Connor maintains that "better results are achieved when the learner gets the basis of articulation right rather than trying for the foreign sound sequences from the basis of his own language" (1973:289). Likewise, Bradford argues that "Deviant production of the L2 sound system which seems to be associated with segmental phonology is often traceable to inappropriate articulatory setting", adding that "If, in the teaching of pronunciation to L2 learners, one were able to establish the setting first, before analysing and describing the individual features, some problems would not exist" (1982:16). A segmental approach is not considered to be the most efficient way of introducing L2 pronunciation, since "it focuses on the specific rather than first directing attention to the general characteristics of accent" (Esling and Wong 1983:90). More recently, Thornbury has argued that "until the learner is able to approximate the voice-setting features of the target language, work on individual phonemes is largely whistling in the dark" (1993:128).

The implication underlying these claims is that learners of a second language approach its pronunciation with their articulators still geared to the production of their L1 sounds (and prosodic features, although these are rarely mentioned by name). Thus, they begin the process of trying to acquire the L2 phonology at a serious disadvantage, since many of its sounds are virtually impossible to produce unless the articulators adopt the same positions, types of movement and degree of muscular activity as those employed by NSs. L1 Habit formation is as much in evidence here as it is in the production of individual sounds, and A. Brown therefore considers that a learner needs to "be trained to abandon the long-term settings of his or her native language and switch to those of

²⁷ O'Connor defines these as the "general differences in tension, in tongue shape, in pressure of the articulators, in lip and cheek and jaw posture and movement, which run through the whole articulatory process" (1973:289).

the L2", arguing that "this large-scale adjustment will facilitate small-scale changes needed in the articulation of the particular vowels and consonants of the language" (1992:13). Dalton and Seidlhofer further suggest that this process will enable learners not only to acquire new sounds more easily, but "above all, to put them together and to make smooth transitions and links". They therefore argue that "concentrating on this holistic aspect of pronunciation thus makes it easier to allow suprasegmental and segmental aspects to work in unison" (1994:142). Nevertheless, as they point out, to date there has been little systematic study of articulatory settings, and the latter are generally ignored in pronunciation manuals, and therefore in the L2 classroom. However, there have been two recent moves in the right direction. Thornbury's list of 22 "tentative suggestions that might constitute the basis for such a methodology", sensibly involves a considerable amount of contrastive work at both receptive and productive levels in order to clarify L1/L2 differences (1993:129-131). Similarly, Jenner (1992:42-46) provides a selection of "Observation" and "Training" strategies which work on both articulatory settings and voice quality, to complement his theoretical discussion.²⁸

The difficulties that learners encounter in adapting to L2 articulatory settings generally relate to the types of movements that the articulators, particularly the tongue, lips and velum, engage in, the degree of muscularity and tension involved, and jaw, cheek and lip posture. Bradford (1982) suggests that the following aspects of English articulation will cause problems for learners: the fact that the main focus is the tongue-tip on the alveolar ridge, whereas in many L1s it is elsewhere; the relative laxness of all English consonants as compared with the excessive muscularity of some learners' L1s (e.g. French and Italian); the tongue's centre of gravity in mid-to-forward position leading to the centralisation of vowels, whereas learners tend towards excessive vowel precision; the neutral character of lip movements with little rounding, spreading or protrusion as compared with, for example, the vigorous lip-rounding and spreading movements of NSs of French; the small degree of muscular effort involved in articulation; and the importance of the rest position for all articulators. To this could be added the fact that NSs of English tend to keep their jaws in a loosely closed position and move them little (Honikman op.cit.). Problems in all these articulatory areas have the potential to lead to pronunciation errors at the segmental and possibly at the suprasegmental level,²⁹ and thus to affect intelligibility for the listener.

²⁸ See also Jenner 1994; also Jones and Evans 1995 (who follow a similar approach to that taken by Jenner 1994).

²⁹ Obviously the diaphragm and vocal cords play the greater part at the suprasegmental level, with the former controlling the breath flow and thus stress and the latter, along with the diaphragm, controlling pitch.

Voice quality, or phonation, may also affect intelligibility. Voice quality is the product of physiological activity in the larynx, and tends to vary, sometimes quite drastically, from one L1 to another, with some NNS voice qualities being less intelligible than others. In an experiment to measure the intelligibility of NNSs of English, white noise was gradually reduced until the point that raters could understand what was being said. It was concluded that understanding is far less a function of correct pronunciation than of voice quality: "Voices which were less intelligible regardless of pronunciation were raspy, husky, hoarse, throaty, breathy, muffled, muted, falsetto, soft, and/or low. Clear sharp voices were intelligible much sooner" (Leventhal 1980:20). In addition, Brown points out that voice quality "may, on occasion, be the cause of loss of intelligibility" because "features of voice quality may be misattributed to causal factors", for example, a whisper may be interpreted as embarrassment when it is simply the result of laryngitis (1991:51). Different voice qualities are also likely to have "social implications" in interaction with NSs (Bradford 1982:17). For example, the high falsetto of many Japanese women could be interpreted as immaturity, while other pejorative inferences may be drawn concerning L2 speakers with guttural, nasal or creaky voice qualities, depending on the cultural background and experience of the listener.³⁰

4.4 Summary and conclusion

The problems involved in pinning down NNS error are manifold. Nevertheless, Chapter Four has attempted to establish a taxonomy of NNS phonological error based largely on the criterion of features common to all NS varieties, though with some adjustments to give greater priority to ILT than it has hitherto been accorded. Focusing on this taxonomy, a number of errors made by NNSs were examined, the literature being supplemented with fresh data to compensate for the lack of information regarding errors in ILT. The effects of these errors on communication, particularly where ILT is concerned, were then assessed, and it was concluded that the taxonomic phonological errors do, indeed, have a serious effect on communication, with errors combining segmental features and faulty nuclear placement frequently leading to the greatest problems. In the light of this conclusion, I argued the need for a more systematic and

³⁰ Having said this, however, my own view is that voice quality forms part of personal and L1 identity (see Jenner 1992 on this point). I believe, therefore that we should not tamper with it any more than we would, for example, attempt to 'correct' the nasal quality of a Liverpudlian's voice, unless it really does cause chronic intelligibility problems (rare in my experience) or the speaker wishes to achieve NS-like (i.e. RP) pronunciation proficiency.

thorough approach to the teaching of pronunciation, and this will be taken up again in Chapter Eight, where the implications for pedagogy will be discussed in greater detail.

However, the situation is rather more complex than has been suggested hitherto. For as was pointed out in Chapter One, interlanguages are natural languages and like all natural languages, are dynamic rather than static, and thus subject to various influences which, in turn, lead to systematic language variation. In an IL, such variation is manifested largely as variation in error, to the extent that up to the point of fossilization, a learner may exhibit variation even within the space of a single conversation. Clearly, then, there is an intrinsic difference between phonological variation in an IL and that in an L1: while the former will be strongly characterised by the presence or absence of L1 transfer errors, L1 transfer cannot, by definition, be implicated in the latter.

Nevertheless, we know from sociolinguistic research that L1 pronunciation is particularly sensitive to social situation, and from work on IL variation, beginning with that of the Dickersons (e.g. L.J. Dickerson 1975, W. Dickerson 1976), that such sensitivity extends to IL (Tarone 1980). The same influences, be they sociolinguistic or psychological, are therefore likely to be involved to some extent in both IL and L1 language variation, albeit with different results. The next chapter will therefore examine the different theories and models of IL variation that have been proposed, in order to identify the most promising one to account for NNS phonological variation, particularly as it occurs within the context of ILT.

Chapter Five

Variation in interlanguage phonology

The concept of interlanguage as a linguistic system independent of both the native and target languages has long been recognised (see pp.9-10). However, the original research approached interlanguage in monolithic terms, not recognising, let alone trying to explain, its potential for variation. When IL variation was first noticed, it was regarded by some researchers as an indication that interlanguages were not, after all, systematic and therefore "as an embarrassment for IL theory and its fundamental tenet that IL is a natural language" (Kasper 1989:41). Nevertheless, early studies of IL phonological and morphological variation, such as those of the Dickersons and Tarone, were able to demonstrate IL systematicity, while Corder (1978) brought to the attention of SLA researchers that first languages themselves vary systematically along sociological and situational parameters. The focus of interlanguage research therefore shifted to the study of its dynamic character. In this chapter I will first discuss a number of issues central to the study of IL variation, then briefly survey the theories which claim to account for this phenomenon, and finally consider why one of these theories, Speech Accommodation Theory,¹ has the greatest potential to account for phonological error variation particularly in ILT.

5.1 An essential distinction between IL and L1 variation

Before moving on to discuss the theories, it is important to clarify our interpretation of the term 'IL variation'. As was indicated at the end of the previous chapter, much of the literature on IL variation draws parallels with the sociolinguistic variation of NSs, arguing that the same Labovian motivations are involved, namely situation and linguistic context (cf., for example, Ellis 1985, 1994; Sharwood Smith 1994). However, the similarity tends to be one of process rather than of product (and even at the level of process there are a number of differences), since learners frequently

¹ According to Speech Accommodation Theory, speakers adjust their speech by means of the processes of convergence and divergence, so that it becomes respectively more and less similar to that of their interlocutors.

vary their language performance in ways not found in either the L1 or L2 (Cook 1993:82-92). In particular, IL variation at all but advanced levels of proficiency is more often characterised by variability in the production of linguistic 'error' than by shifts between more and less colloquial styles. In addition, variability is far more prevalent in learner than in native language.

In view of their differences, Tarone distinguishes between L1 and IL variation by means of the terms *style-shifting* and *register-shifting*: "in interlanguage style-shifting should be viewed as distinct from the phenomenon of "register-shifting" - the sociolinguistic ability to speak casually in casual situations, or formally in formal situations". She argues that "the second-language learner may learn only one register of the target language, and still style-shift within that register in the sense of paying greater or less attention to speech" (1982:73). Tarone (1983) accounts for this situation by claiming that most classroom second-language learners are likely to be exposed to only one register.² Sato also draws attention to the fundamental difference between L1 and L2 speakers, pointing out that learners "do not have access to the second language norms about which linguistic forms are associated with which social parameters" (1985:195). However, some qualification is necessary here since, more recently, language classrooms and materials have begun to devote at least a little attention to concepts of formality and social appropriacy. As a result, many learners are nowadays likely to be exposed to more than one level of formality and to the matching of linguistic forms with social parameters, from a relatively early stage of learning.

The essential point, however, is that any such shifting between different levels of formality by learners does not constitute the bulk of IL variation. Interlanguages are characterised by a far greater degree of variation in the form of linguistic error than are first languages, by virtue of their susceptibility to permeation by both native language and aberrant target language forms during and beyond (through fossilization) the learning process, and because learners have different degrees of control over items according to the status of these items in the current IL (Sharwood Smith 1994:111-112). It is therefore variability of error production, and specifically variability of phonological error in ILT, that we will focus on in this chapter and in the light of which the theories and models will be evaluated.³

² It should be noted that Tarone's interpretation of the terms 'style' and 'register' is not that generally employed by sociolinguists, who usually discuss 'style' with reference to level of formality, while reserving 'register' to describe the language specific to particular domains, such as occupational and interest groups (cf. Richards, Platt and Weber 1985).

³ Zuengler 1985 likewise argues that L1 standardness and L2 correctness are subject to the same variables, such as interlocutor effect and attention to speech. See also Beebe and Giles' comparison

5.2 Theories and models of IL variation

Once the existence of systematic IL variation had been acknowledged, researchers began attempting to build it into their theories of SLA. One notable exception here is the group of researchers working in the Chomskyan tradition (for example, Gregg 1990), who argue that variation is a feature of performance rather than competence, the exception rather than the rule, and who therefore ignore it altogether (see Ellis 1994:155-156 for a discussion of this issue). However, it seems unlikely that the extensive variability in learner language in the form of systematic synchronic errors can be accounted for purely in terms of performance. Moreover, we have clear evidence to show that such errors are not the exception, despite Swan's claim that "synchronic variability is not in fact a characteristic feature of most learners' language" and that "most structures are learnt correctly from the beginning" while "some are learnt wrongly from the beginning and stay wrong" (1987:65). For the majority, therefore, variability is regarded as an enduring aspect of L2 competence and thus as a phenomenon that must be explored and explained.

The different lines of inquiry that have been pursued have resulted in a proliferation of competing and complementary theories and models of IL variation, detailed examination of which is beyond the scope of the present research. Indeed, according to Wolfram, "the range of models and perspectives is almost overwhelming in its inclusiveness, a virtual pot-pourri of sociolinguistic and SLA inquiry", and it is therefore unlikely that any "honest reviewer can claim to be conversant enough with all the current perspectives being applied to the study of SLA variation to provide a comprehensive, fair critique" (1991:104).

Wolfram himself briefly reviews five of the most recent volumes on the theme of IL variation, and locates the main directions of research as falling within the fields of sociolinguistics, SLA "as a field in its own right" (eg. Krashen's monitor model 1981), and mainstream linguistic models such as that of Adjemian (1976). He devotes most space to the sociolinguistic influences that have informed IL variation research, dividing them into a number of subfields: the Labovian 'variable rule'

of an L1 with an L2 speaker's performance, which is likely to have among other features, a "higher variability *not* due to sociolinguistic style shifting" and "a higher rate of performance errors" (1984:17; emphasis in original). They attribute this to the fact that "in addition to the social psychological factors that affect all language performance, L2 speech performance is always subject to L1 interference" (ibid:18).

tradition; the ethnography of communication associated with Hymes and Gumperz; pragmatics and discourse analysis; and social-psychological perspectives, primarily Giles's Speech Accommodation Theory.

In this section, we will look at the most comprehensive taxonomy of theories of IL variation, namely that of Tarone, in order to provide a background to the present research. It will quickly become clear that while there are many different theories originating from a diverse range of linguistic perspectives, no unitary model has been identified. Tarone (1988, 1989) considers this to be a problem, arguing that any satisfactory model should be able to explain and predict all the known facts of IL variation. Ellis likewise asserts the need for models of considerable complexity to account for all known sources of variability. A complete theory, he contends, would have to explain "(1) the cognitive processes involved in planning variability, (2) the nature of form-function networks that learners construct at different stages of development, and (3) the systematic way in which learners use L2 knowledge to convey social meanings" (1994:368).

On the other hand, Wolfram argues that the search for such a model is "elusive" and that the current wide range of perspectives is in fact an advantage, since it enables research into SLA variation "to resist the temptation to be subjected to myopic distortions imposed by a single vantage point" (*ibid.*). Zuengler takes this argument a stage further in claiming that "it is misguided to search for one comprehensive theory, since one theory will most likely be insufficient in explaining the complexity of performance variation" (1989a:66). Indeed, it will be argued here that phonological variation in ILT stems from a different source or motivation than other kinds of IL variation.

Before we turn to Tarone's taxonomy, one further issue requires some comment: the synchronic/diachronic distinction, the systematic/free distinction, and the possible relationship between the two. Our present concern is very much with synchronic or 'horizontal' variation as opposed to diachronic or 'vertical' variation, in that our ultimate aim is to account for phonological variation occurring at one point in time (even within the space of a single interaction) rather than over time. However, we must acknowledge that there is a degree of overlap between synchronic and diachronic variation in that "at any one stage of development, a learner is likely to produce utterances reflecting different stages of development" (Ellis 1994:114). New forms entering the interlanguage compete with existing, possibly erroneous, forms leading to synchronic variation. Provided that learning

continues to take place, the interlanguage will be reorganised so that the newer form will gradually replace the older form in specific contexts. Thus, as Widdowson points out, "change is only the temporal consequence of current variation" (1979:195).

Ellis relates the link between synchronic and diachronic variation to that between free and systematic variation. According to his multiple competence model (1985b), and in line with Gathbonton's gradual diffusion model (1978), new forms entering the interlanguage at first exist in free variation with forms already present. The learner by stages restricts each form to specific contexts, thus producing systematic variation. Ellis (op.cit.) argues that two forms can be considered random provided that they occur in the same situational, linguistic and discourse context, perform the same illocutionary meaning, and do not involve the paying of differential amounts of attention to form.

However, Ellis's claim for free variation is controversial. Many researchers consider that such variation does not exist at all and that we have simply failed thus far to identify the factors contributing to its underlying systematicity (cf. for example, Preston 1989, Cook 1993, Sharwood Smith 1994). While Schachter (1986) concedes that free variation may exist, she considers it to be of minimal interest because it occurs only in isolated instances and then only for the briefest of periods at the beginning of the acquisition of a new form. Cook (1993) points out, moreover, that there have been remarkably few studies providing evidence of such free variation. In the final analysis, it seems to be avoiding the issue somewhat to claim that any inexplicable variation is 'free'. In Chapter Seven, I will therefore attempt to explain the phonological variation that occurs in the data presented there in terms of systematic variation in the light of one particular theory: Speech Accommodation (see 5.3 below for a rationale).

In her definitive account of IL variation (1988), Tarone discusses a number of theories and models, which she divides into 'inner processing' and 'sociolinguistic and discourse' theories. The former group, in which the cause of variation is located in inner psychological processes, comprises Krashen's Monitor Theory, 'Chomskyan models' such as those of Adjemian and Liceras, the psychological processing theories of McLaughlin, Bialystock and Sharwood Smith, and Ellis, and 'Labovian' models including Labov's 'attention to speech', Tarone's 'capability continuum', and the work of the Dickersons. The 'sociolinguistic and discourse' group is further subdivided into 'socio-psychological' models, of which Tarone

discusses the multi-dimensional model of Meisel, Clahsen and Pienemann, the Speech Accommodation theory of Beebe and Giles, and the 'discourse domains' model of Selinker and Douglas; and 'function-form' models first exemplified by the work of Hakuta, and later by that of Huebner, Schachter and Tarone herself.

Although Tarone's taxonomy has been criticised (see below, p.105 ff), it is the most comprehensive and comprehensible available and will therefore be discussed in some detail here. While the present interest is in phonological IL variation, it should be noted that most of the theories claim to account for variation at all linguistic levels, even though researchers generally focus on one level in particular (usually phonological or syntactic) in the studies in which they gather their data.

Before proceeding to a more detailed discussion of the theories, Tarone presents the criteria according to which they will be assessed. She argues that an adequate theory of IL variation must satisfy four conditions. First, it must recognise a degree of systematicity in interlanguage, since if interlanguage were totally unsystematic, an L2 learner would be unable to convey meanings clearly. Second, it must be empirically verifiable, that is, able to predict data. Third, it must be able to account for variation at all levels (phonological, morphological, syntactic, lexical, discursal, pragmatic and sociolinguistic), and allow for the existence of all known causes of variation (linguistic context, psychological processes, social factors and language function). Finally, it must have internal consistency.

Tarone considers all the 'inner processing' theories to suffer from a major weakness since they rely on unobservable phenomena in the form of subjective evidence obtained from learner intuition, and are thus not verifiable by empirical evidence. (See also Tarone 1982, where she asserts the need for researchers to observe meaningful utterances in situations where the subject is not paying attention to language form in order to discover the most systematic knowledge underlying IL performance). She argues that each of these theories postulates a different psychological process, such as Labov's attention to speech (cf. Labov 1972) or Krashen's Monitoring (cf. Krashen 1981), but that it is not possible to choose between them empirically.⁴

Moving to the 'sociolinguistic and discourse' category, Tarone points out that a number of researchers stress the importance of social context in the acquisition and

⁴ Sachdev (personal communication) disagrees that inner processing theories are empirically unverifiable, arguing that psychologists make a living out of doing precisely this.

use of interlanguage. She cites, among others, Schumann's (1978) theory which relates success in second language learning to factors such as the learner's social distance from speakers of the target language, and Gardner and Lambert's emphasis on the part played by learner attitudes (1972, also Gardner 1985). However, both theories are criticised elsewhere by Beebe and Zuengler, who argue that while Schumann accounts for variation across learners, he does not account for intralingual variation, and similarly that Gardner's model ignores "factors affecting the dynamics of an individual's variable performance at any one point in time" (1983:201).

One advantage of the 'sociolinguistic and discourse' theories is that empirical verification is easier when causes of interlanguage are traced to situational factors. All three 'socio-psychological' theories are thus able to satisfy Tarone's second criterion in that they are empirically verifiable, despite the fact that in reality they tend to rely on anecdotal evidence rather than objective data based on large-scale studies. They also satisfy her first criterion by postulating systematicity. However, they do not meet her third condition, since she considers none of them to have sufficient explanatory power to account for variation at all levels or from all known causes. For example, she contends that the function-form models cannot account for evidence supporting the constraint of 'attention to speech', while Speech Accommodation Theory (henceforth SAT) is unable to account for variation due to linguistic context. Although to date Tarone's latter claim has not been disproved, one must nevertheless allow for the possibility that we simply have not as yet been able to explain this type of variation within the SAT framework rather than that it is categorically impossible to do so. In this context, it should be noted that some researchers advance the same line of argument against Ellis's claim for the existence of free variation (see p.101 above). Moreover, in Chapter Seven, it will be suggested that variation due to phonological context may interact with one of the motivations which underly accommodative strategies, namely the desire for communicative efficiency. Thus, while at present it is not possible to claim for the theory the explanatory power to account for all variation due to all linguistic contexts, this link represents a step in that direction as far as phonology is concerned. It is therefore not inconceivable that SAT may ultimately be able to incorporate variation due to linguistic context into its framework.

The first of the 'social-psychological' models to be discussed by Tarone is that of Meisel, Clahsen and Pienemann (1981) who, building on the work of Schumann and Gardner and Lambert, incorporate social-psychological factors into their multi-

dimensional model of second language acquisition. According to their model, the learner's social-psychological characteristics determine the nature of the interlanguage he acquires, such that learners with greater social and psychological distance from speakers of the target language are more prone to simplification of rules than learners who are closer. Because such simplification strategies are not automatically applied, but only come into play in order to avoid specific grammatical complexities, they occur only in certain linguistic environments, thus causing variation. Tarone's main criticism of Meisel et al's model is that while it explains some kinds of interlanguage variation that relate to the linguistic environment in which they occur, it does not explain variation in terms of task type or situation.

The second 'social-psychological' model to be described in detail by Tarone is SAT itself. Although not originally a theory of second language acquisition, SAT is able to explain variation in the accuracy of interlanguage that occurs in different tasks and situations by means of its strategies of convergence and divergence, according to which the learner adjusts his speech so that it becomes respectively more and less similar to that of his interlocutor. Tarone argues that while the theory contains some elements of Labov's style-shifting, through attention to speech, it goes far beyond the latter by establishing the social and psychological causes of style-shifting, relating them to social-psychological categories of intergroup distinctiveness and identity assertion.

One problem Tarone finds with SAT however, is that research has tended to focus on L1 and bilingual speakers, so that few data have been acquired from second language speakers. The theory is therefore relatively undeveloped in terms of its application to IL variation. It should be pointed out, however, that since the publication of Tarone's book, the situation has begun to be rectified at least in terms of NS/NNS interaction, with the present research extending the framework to ILT. In addition, major developments have taken place which have had the effect of extending the scope of SAT (see pp.117-118 below). A second problem, which has already been discussed, relates to SAT's apparent inability to explain variation caused by linguistic context.

The 'discourse domains' model of Selinker and Douglas (1985) is also in its infancy and is therefore described only briefly by Tarone. This model proposes that interlanguage develops differently in different social contexts, or 'domains'. It is the learner himself who defines the domains in which he operates, though there will

inevitably be a degree of overlap among learners, particularly in occupation-related talk. However, as Tarone argues, the model suffers from difficulties in defining the notion of 'discourse domain' and, like most of the 'sociolinguistic and discourse' theories, from the fact that most of the data are anecdotal and unsystematic.

Tarone ends her account by stating that no single theory is sufficiently comprehensive, since none is able to incorporate all the constraints for which we have empirical evidence, namely "linguistic context, attention to form, interlocutor, topic and social norm, and function-form relationships". She considers the sociolinguistic and discourse theories to be the most satisfactory in terms of both comprehensiveness and empirical verifiability, but concludes that "What is needed is a clear, consistent theory which ties all these relationships together in a single framework, and which makes empirically verifiable claims" (1988:57).

Tarone's taxonomy enables us to place the many different theories and models in perspective and evaluate them in relation to one another. Wolfram gives her credit for attempting to categorise such a wide and diverse range of theories under two main headings. However, he argues that the terms 'inner processing' and 'sociolinguistic and discourse' are so general that they "cover just about any model or approach one might imagine apart from completely abstract theory construction" (1991:104).

Ellis criticises Tarone for blurring the difference between sociolinguistic and psycholinguistic models, and in his own summary distinguishes clearly between them (1994:133). His sociolinguistic group of models comprises the Labovian paradigm (style-shifting as a result of differential attention to speech), which Tarone places in her 'inner-processing' group of theories, the dynamic paradigm (variation in language use accounted for by a theory of language change), and the social-psychological paradigm (speech shifts motivated by addressee factors). His psycholinguistic group divides into speech planning and speech monitoring models.

Like Tarone, Ellis identifies problems with all the paradigms he discusses. Within the sociolinguistic group, he considers that the Labovian paradigm ignores addressee effect, and that the dynamic paradigm may not be applicable to L2 acquisition, because change is often so rapid that it is not necessarily possible to identify distinct varieties and, therefore, clearly defined stages of development. While SAT recognises the central importance of the addressee, and accounts for variation within the context of a single conversation, he argues that there is a

problem in applying the concept of social group to language learners and cites Beebe's claim⁵ that SAT does not account for variation arising from learning, communication, or performance strategies.⁶ Meanwhile, he considers that the psycholinguistic models do not account for within-conversation shifting and, in particular, the influence of the addressee. He concludes that "the study of L2 variability requires both a sociolinguistic and a psycholinguistic perspective" (1994:132).

Some of the criticism of Tarone's taxonomy centres specifically on her placing of Labov's paradigm within an essentially psycholinguistic category. Ellis argues that by treating L2 models based on Labov's attention to speech as examples of 'inner-processing' theories, Tarone has in effect "chosen to ignore what is central to the Labovian model, namely social organization". He points out that the studies based on this paradigm are "informed by a sociolinguistic model designed to account for how situational factors affect language use", and considers that they fail to do this because "the nature of the link between attention and social factors ... is particularly unclear in the case of L2 learners" (1994:148). Thus, though attention to speech is indeed likely to play a role in IL variation, Labovian models do not inform us as to what it is that causes the learner's attention to vary in the first place, a point made by Tarone (1988) herself. Swan even questions whether the notion of style is appropriate for the description of differential levels of accuracy in the IL performance of individual linguistic items (see also section 5.1 above on this point). He contends that in order to justify the involvement of style-shifting in IL variation, "it would be necessary to demonstrate that, in a particular interlanguage, a significant number of features all varied together purposefully according to the degree of attention paid to language form" and adds that "no such claim is made by Tarone" (1987:62).

It is worth observing that the Labovian paradigm itself has been the subject of some criticism. Bell (1984) and Rampton (1987) point out that attention to form does not necessarily decrease as a speaker shifts from more formal to vernacular speech. Sato (1985) argues that it is in any case extremely difficult to measure how much attention to speech is actually being paid by the speaker. Larsen-Freeman and Long (1991:86), moreover, point out the circularity of the argument: we do not know how much attention is being paid to speech, but judge this from the language itself. Nevertheless, attention to form is implicated in the data presented in Chapter Seven

⁵ Made in a plenary address to the Second Language Research Forum, Los Angeles, 1982.

⁶ Though see Chapter Seven below, where the variation in the data presented is interpreted as arising specifically from a communication strategy.

below, and like Tarone (see above, this section), I will argue that the paradigm, at least in terms of IL phonological variation, can be incorporated into an accommodative framework.

Many who write on IL variation select and discuss particular theories or models rather than attempting to categorise them in any way. Preston, for example, discusses three of the so-called 'inner-processing' models of IL variation, namely Krashen's monitor model, Ellis's variable competence model (whose construct of free variation he argues strongly against), and Tarone's continuous competence model. He goes on to suggest a sociolinguistic model in which he attempts to unify 'inner processing' and sociolinguistic theories by relating "entering and receding" forms in the developing interlanguage to processing time, markedness and individual and interactional factors (1989:252-69).

Accounts of IL variation generally agree on the importance of social context and, in particular, the role of audience factors, an area that is completely overlooked in the attention to speech paradigm and other 'inner processing' theories, but one which is central to SAT. Bell (1984), argues that variation is the result of adjustments, or accommodations, made by speakers according to their interlocutor's personal characteristics, general speech style, and specific linguistic usage. Thus, he identifies social factors which are responsible for triggering both psychological and cognitive processes. The majority of surveys of interlanguage variation therefore conclude, like Tarone and Bell, that despite shortcomings, accommodation theory offers the best explanation to date for such variation.⁷ The final section of this chapter will consider why SAT is particularly well-placed to account for phonological variation in ILT, and in so doing will suggest that IL phonological variation may be differently motivated from other types of variation, and that a unitary model to account for all IL variation at all linguistic levels (though not necessarily according to all constraints) may therefore be an inappropriate goal.

5.3 The primacy of accommodation theory as an account of phonological IL variation

SAT, or CAT (Communication Accommodation Theory) as it is now known, is widely held to possess considerable explanatory power as a theory of L1 language

⁷ Ellis (1994:366-369) considers Preston's theory to be the most comprehensive in its attempt to combine sociolinguistic and psycholinguistic perspectives, but points out that it is not very clearly described in Preston 1989.

variation (see 6.1). Moreover, as has already been stated, it is generally regarded, though with some reservations, as having the potential to develop into the most satisfactory of all the theories and models attempting to explain IL variation. When we turn to IL variation specifically in the context of ILT, and to phonological variation in particular, we find further justification for backing accommodation theory. This relates to a combination of phonological speaker and hearer factors that is unique to ILT

As regards IL phonological speaker factors, it was noted in the discussion of transfer in Chapter Four that phonology differs in certain crucial ways from the other linguistic areas. Most importantly, whereas the acquisition of L2 morphology and syntax is heavily subject to developmental and universal processing constraints, L1 pronunciation is largely the product of habit formation and thus automatic, and consequently, L1 phonological features are likely to be transferred automatically in the production of a second language (Ellis 1994 therefore considers that interlanguage may be a restructuring continuum in terms of phonology, but that Corder may be correct in claiming that it is a recreating continuum in other linguistic areas; see p.41 for definitions of these terms). The transfer process commonly results in an abundance of L1-specific pronunciation 'errors' which, by definition, vary from speakers of one L1 to another (the concept of phonological transfer being used here in the wider sense in which it was discussed in Chapters Three and Four). Such phonological transfer errors are thus most likely to occur when there is a lack of monitoring of pronunciation performance, whereas syntactic and morphological errors often occur, despite monitoring, as a result of the learner's processing difficulties relating to degree of knowledge and control of the L2 (cf. Bialystock and Sharwood Smith 1985).

Moving on to IL hearer factors, we recall from the discussions in 1.2 and 4.2 that the L2 hearer has a tendency to process language bottom-up, thereby ignoring contextual cues and focusing heavily on the acoustic signal. Error-free pronunciation, in terms of the subset of error types considered in the previous chapter, is therefore crucial as a first stage in facilitating the L2 hearer's ability to interpret IL speech. However, IL pronunciation is rarely free even of this subset until a relatively late stage of development. Moreover, because of their L1-specific nature, phonological transfer errors potentially pose a far greater threat to successful communication than do errors from other linguistic areas, where there is more common ground among learners from different L1s (cf. Ioup 1984 and 3.1 above). Indeed, in the follow-up interviews and questionnaires forming part of the two

studies described in Chapter Seven below, subjects invariably cite their interlocutor's pronunciation as the cause of mis- or non-understanding.

Because the scenario outlined above operates at both speaker and hearer level, phonological transfer errors are far more likely to lead to problematic communication in ILT than in NS/NNS interaction. However, the overriding motivation for learning English as a foreign language is the desire to communicate with and thus, by definition, to understand and be understood by, other speakers of English, who nowadays are more likely to be other NNSs than NSs (see 1.2). The demands of communicative efficiency and, by the same token, the needs of the addressee, are therefore bound to provide a motivating force in ILT. Thus, in those situations where the conveying of a message is the speaker's most salient motivation, we should expect him to monitor and adjust his pronunciation by means of some sort of convergence towards the speech of his addressee, in order to reduce the phonological differences between them and in so doing render his speech more intelligible. Such monitoring of pronunciation in the interests of communicative efficiency will inevitably lead to IL phonological variation (though as Sato 1985 argues, some L2 features, such as certain consonant clusters, do not style shift, or only do so with great effort because of linguistic difficulty and/or the learner's stage of development). It should be noted that the motivation claimed for such convergence bears a marked similarity to that thought to underlie the notion of recoverability, for as regards the latter, it is the desire to promote addressee comprehension that appears to promote the selection of certain phonological simplification strategies over others, for example, epenthesis rather than consonant deletion (see 3.3.1).

While Giles's accommodation theory was originally rooted in socio-psychological concepts of intergroup distinctiveness and identity assertion (see 6.1 below), these concepts are unlikely to play any significant part in ILT. Tarone asks in relation to the multi-lingual classroom, "what is the speech community of the second-language learner? Where all learners speak the same native language and share the same culture, this may be clear. But what about the case of the ESL classroom where nearly every learner may come from a different native-language background? With what speech community(ies) does a learner in this situation identify?" (1988:118). Ellis also questions whether "the notion of 'social group' is applicable to many language learners" (1994:130). This issue will be taken up in the following chapters, where it will be seen that while the question of group identity is a complex one, in terms of ILT it is of limited relevance, not appearing to surface at all in the

context of dyads, and even in larger groups possibly playing a subordinate role to that of communicative efficiency.

The promotion of interlocutor comprehension was first mooted as a primary motivation for convergence by Thakerar et al. (1982) and subsequently by others such as Shockey (1984) and Takahashi (1989),⁸ whose studies will be discussed in greater detail in the following chapter. Tarone and Parrish's (1988) reanalysis of the data reported in an earlier study of Tarone's (1985) also lends some support to the notion of IL variation as being motivated by the need to communicate effectively to an interlocutor.⁹ In a more recent development of CAT, Giles and Coupland themselves claim for the theory "cognitive organization versus identity-maintenance functions", arguing that "increased intelligibility is a valuable byproduct of convergent acts and may on occasion be the principal motive for accommodating" (1991:85). This issue will be discussed at greater length in Chapter Six, where a strong claim will be made for such intelligibility as providing the chief, and possibly sole, motivation for phonological convergence and thus, phonological variation, in ILT dyads.

In concluding this chapter, I make no claims for accommodation theory as a unitary model to account for all IL variation, but only for phonological variation and possibly other related dimensions such as speech rate and speech quantity which, like pronunciation, are to an extent connected with habit formation and automaticity. Although convergence and divergence undoubtedly function at other linguistic levels, particularly within the context of first language style-shifting, as Tarone points out, "the influence of the interlocutor upon IL variation which is shown at the phonological level seems more amenable to an SAT interpretation" (1988:89). Many of the studies of IL variation conducted within the accommodation framework are, not surprisingly, phonological, and it is not beyond the bounds of reason that accommodation theory may ultimately prove able to account for all IL phonological variation, thus subsuming constraints such as task difference, linguistic context and degree of monitoring, and even explaining so-called 'free variation'. On the other hand, the other areas of linguistic IL variation, which generally concern errors deriving from difficulties of knowledge and control rather

⁸ Shockey, like Thakerar et al. works within the context of NS interaction, while Takahashi's study focuses on NNS speech.

⁹ However, this study involves grammar items rather than phonological, and the data are analysed within a function-form rather than an accommodative framework. In addition, the emphasis is on the communicative pressure placed on the speaker by the hearer, rather than on the speaker's *self* motivation (see 8.1 below).

than from the automatic transfer of L1 habits, may prove more amenable to explanation by means of a different theory.

The present claim is thus that in stressing the role of the addressee in IL variation, accommodation theory has the greatest potential to account for phonological variation in ILT. This is because within ILT's unique set of speaker and hearer factors, pronunciation errors are likely at best to necessitate much negotiation of meaning and consequent interruption to the flow of conversation (see pp.6-7), and at worst to cause a total breakdown in communication. Accommodation theory of all the theories and models of IL variation offers an explanation for the way in which speakers alter their pronunciation in order to decrease the differences between themselves and their interlocutors, thus reducing the potential for miscommunication. In the next chapter, the accommodation framework will therefore be examined in detail, in order to provide a clear background to the studies that follow, in which the paradigm will be extended to account for phonological IL variation within the context of ILT.

Chapter Six

Accommodation Theory: a framework for investigating phonological IL variation

Accommodation theory originated in its earlier form of SAT to account for the motivations underlying adjustments in people's speech, in particular the cognitive and affective processes underlying the speech strategies of convergence and divergence. The goals of such speech adjustments were claimed as one or more of the following: evoking the addressee's social approval, promoting communicative efficiency between interlocutors, and maintaining a positive social identity (Beebe and Giles 1984). The many studies conducted within the accommodation framework have tended to place greatest emphasis on the first and third of these goals. However, some of the more recent work investigating IL variation focuses, like the present research, principally on communicative efficiency. In this chapter, I will first examine the various influences that contributed to the original theory together with more recent developments and the consequent broadening of the theory's scope, before moving on to discuss the relevance of accommodation theory to IL variation in general and to account for phonological speech adjustments in ILT in particular.

6.1 The theoretical framework

Accommodation theory draws on four social-psychological theories in order to explain style shifts (Beebe and Zuengler 1983). The four theories will be described in greater detail later in so far as accommodative strategies relate to their principles. For the present, a brief outline will suffice. First, the theory of similarity attraction (Byrne 1969, 1971), which claims that people are more attracted to those who share similar beliefs and attitudes than to others. Second, social exchange theory (Homans 1961), according to which people weigh up the rewards and costs of alternatives before they act, usually selecting the alternative which will result in the greatest reward and smallest cost. Third, the theory of causal attribution (Kelly 1967), which suggests that people evaluate one another's behaviour according to their interpretation of the motives underlying that behaviour. Fourth, intergroup distinctiveness (Tajfel 1974, 1978), according to which people from different

groups who interact, make social comparisons across their groups, in order to be able to retain distinctiveness and, thus, their social identity as group members. As Beebe and Zuengler point out, it is possible for two or more of these theories to be operating at the same time to cause variation in a speaker's language, and to offer an explanation for the strategies of convergence and divergence (see below, this page) which form the basis of accommodation theory.

The first work on accommodation was published in the early 1970s, when Giles (1973) demonstrated the phenomenon of interpersonal accent convergence in an interview situation and introduced his 'accent mobility' model. He argued that instead of explaining situational variation by means of Labov's 'attention to speech' paradigm (see pp.106-107 above) and the formality or informality of the context, the focus should be shifted to processes of interpersonal accommodation, and particularly to receiver characteristics. These processes were subsequently incorporated into SAT and led to a plethora of further research by both Giles and others, in which a wide range of speech variables were manipulated in a large number of different settings. In its original form, SAT "aimed to clarify the motivations underlying speech and intermeshed in it, as well as the constraints operating upon it and their social consequences" (Giles, Coupland and Coupland 1991:6), by means of focusing on speech convergence and divergence, and attempting to explain the cognitive and affective processes underlying them. More recently, the theory has been broadened to include other strategies such as complementarity and over- and under- accommodation. In the most recent years, its scope has been further extended to incorporate a whole range of non-verbal and discursive dimensions of social interaction, which are reflected in its change of name to *communication accommodation theory*, or CAT (Giles et al. 1987; Giles and Coupland 1991:63; Giles, Coupland and Coupland 1991).

In essence, convergence is a strategy by which individuals adapt to one another's speech (SAT) and other communicative behaviours (CAT) in terms of a wide range of linguistic and prosodic features, such as speech rate, pauses, utterance length, pronunciation and, in the case of CAT, non-vocal features such as smiling and gaze. Divergence, on the other hand, refers to the way in which speakers emphasise speech and non-verbal differences between themselves and their interlocutors. Divergent strategies range from a few pronunciation and content differences to abuse and even the switch to another language. Convergence is seen as a strategy of identification with the communication patterns of an individual and is thus internal to the interaction. Divergence, by contrast, is more often regarded as a strategy of identification with the communicative norms of a reference group external to the interaction, and is therefore predicted to occur more frequently in interactions where speakers have different social identities. Maintenance is, in effect, a type of

divergence in that interactants preserve their speech patterns and other communicative behaviours across situations in order to maintain their group identity.

Within these broad categories are a number of distinctions. Both convergence and divergence may be upward, by means of a shift towards a prestige variety, or downward by means of a shift away from it. They may also be uni- or multi-modal (convergence and divergence at one and at two or more levels respectively), partial or total (where total would indicate one hundred percent matching of the interlocutor's speech on the dimension under consideration), symmetrical (reciprocal) or asymmetrical (non-reciprocal), large or moderate, and objective or subjective (respectively convergence and divergence to what is actually heard or to a belief about what the interlocutor sounds like, in other words, to a stereotype). There are also thought to be optimal rates of convergence (Giles and Smith 1979), with the phenomenon of "overaccommodation" arising when a speaker is considered by the recipient to be making more adjustments than necessary, thus often leading to miscommunication despite the speaker's intention to produce the opposite effect.¹

Of the three main motivations found to underlie convergence and divergence, the first two (to gain the interlocutor's social approval and to communicate efficiently) relate primarily to convergence, and the third (to maintain a positive social identity) to divergence (Thakerar et al. 1982). In its unmarked form, convergence relates to the theory of similarity attraction (see above), reflecting a speaker's often unconscious desire for identification with another, and the consequent adjustments made to his speech in order to sound more similar to the other's. Various studies have shown that through convergence a speaker may increase his attractiveness, predictability, intelligibility and interpersonal involvement in the eyes of his interlocutor (Giles et al. 1987). Thakerar et al. have pointed out that "the magnitude of speech convergence will be a function of the extent of the speakers' repertoires" (see below, 6.3.2, in relation to IL variation) as well as of "the factors (personality and environmental) increasing the need for approval" (1982:218).

The second and third motivations for convergence and divergence, i.e. communicative efficiency² and identity maintenance, are psychological rather than affective in essence (Thakerar et al. 1982). A desire for communicative efficiency which, as stated in the previous chapter, may be the principal motivation for convergence, can lead to cognitive

¹ See Bell 1984, Coupland et al. 1988, Zuengler 1991; also 6.2.2 below on overaccommodation in foreigner talk.

² Various similar terms are used to represent this aspect of the cognitive organisation function of accommodation, for example 'communicational efficiency' (Thakerar et al. 1982, Beebe and Giles 1984), 'communication efficiency' (Coupland 1984), 'communicative effectiveness' (Giles et al. 1991).

organisation of a speaker's output. This involves the speaker's organising of his speech to take the recipient's requirements into account which, in turn, leads to increased intelligibility. Thakerar et al's work on psychological convergence and divergence (see pp.116-117) has demonstrated how a complementary relationship can increase mutual predictability, which is also likely to facilitate understanding. More recently, research on discourse attuning, has described how a speaker considers the recipient's ability to understand, or his 'interpretive competence', and has postulated a range of 'interpretability' strategies (see pp.117-118).

It has been pointed out that divergence, too, may function to improve communicative efficiency. For example, the strategy of 'self-handicapping' (Weary and Arkin 1981, cited in Giles and Coupland 1991), by which a speaker broadens his accent, will serve as an indication to his interlocutor that he is not entirely familiar with the language or situation, and will cause the interlocutor both to take this fact into consideration in his own output, and to make greater allowances for lapses on the part of the speaker. Again, a speaker may diverge in speech rate from a fast-talking other in order to slow him down to a speed more conducive to comfortable communication (Giles et al. 1987), or in pitch level to encourage a (usually female) high-pitched interlocutor to lower her pitch.

The communicative efficiency motivation is of paramount importance to the present research. Speakers who find themselves together in an attempt to accomplish a particular task, the successful accomplishment of which is to their mutual advantage, are likely to be instrumentally motivated to facilitate communication in order to achieve a successful outcome. If the speakers involved come from different linguistic and cultural backgrounds, accommodative features are likely to have far more significance for comprehension than they would in communication between speakers from similar backgrounds. Bell (1984) therefore argues that when widely different accents come into contact, there is strong pressure to converge in order to promote intelligibility. The communicative efficiency motivation will be discussed at greater length in the final section of this chapter, where it will be proposed as the primary motivation for attempts at convergence in ILT, and thus for IL variation in this context.

If the chief concern of interlocutors is efficient communication, identity maintenance, in particular, that which involves divergent strategies, is less likely to feature prominently (though see 6.3.2 and the studies in Chapter Seven: where ILT is concerned, repertoire and/or level of competence may conspire against this intention). Where it does occur, identity maintenance may be an intergroup process in which a speaker diverges from his interlocutor to emphasise his differences from the latter and to assert his own social

identity. On the other hand, it may relate to ego-reinforcement: speakers may "wish to communicate in a manner that will allow them to present themselves most favourably and listeners may, in turn, wish to select creatively from the multiple messages they hear in ways that maintain or even enhance their own self- or group esteem" (Giles and Coupland 1991:85-86). In this respect, Thakerar et al. (1982) suggest that their low-status subjects converged to where they believed their standard-speaking interlocutors to be as an act of identity maintenance, in order to appear more competent, whereas the high-status speakers converged towards where they believed the low-status speakers to be as an act of cognitive organisation, to facilitate the latter's comprehension.

Although convergence has been shown to be a strategy which provides interlocutors with social benefits, certain 'caveats' have been suggested. These relate to multiple meanings and social costs, social norms, causal attributions, and optimal levels. Briefly, the first of these concerns the way in which convergence may entail both rewards and costs, such as gains in listener approval and cooperativeness as balanced against loss of social identity or expended effort (cf. Bourhis et al. 1975). The second caveat deals with the point that situational norms may take precedence over accommodation, so that convergence may not necessarily lead to a positive evaluation where conforming to a strong social norm is involved (cf. Genesee and Bourhis 1988). The third caveat explains how the recipient of both convergence and divergence does not necessarily accept these strategies at face value, but evaluates them according to his interpretation of the causes that lie behind them. In doing so, he takes into account the interlocutor's ability, the degree of effort made and any external pressures that may be compelling the interlocutor to converge or diverge (Hewstone 1989). The fourth caveat regarding optimal levels of convergence, and discussed elsewhere in this chapter, relates to the fact that multimodal convergence may be perceived as patronising, and that listeners may have a "tolerance" for certain amounts as well as for certain rates of convergence (Giles and Smith 1979).

The earliest work carried out within the accommodation framework treated convergence and divergence as purely linguistic phenomena. Subsequent research, however, has demonstrated a distinction between linguistic and psychological convergence and divergence. Thakerar et al. (1982) have shown how psychological convergence may result in linguistic divergence in situations such as interviews, where interactants have different roles, and in which they therefore expect to share a complementary relationship. Speech complementarity may also occur when speakers have unequal status due to situational factors such as the nature of the topic under discussion (see Zuengler 1985, 1989a). Thus, in situations where speakers are interacting in order to attain a common goal, divergent strategies in the form of speech complementarity may well result, and these appear to

increase mutual predictability (Berger and Bradac 1982). However, in all such situations of complementarity, linguistic divergence on some dimensions are likely to occur simultaneously with linguistic convergence on others. It is also possible to find psychological divergence resulting in linguistic convergence, such as in the reciprocation of abuse and interruption, or mimicking (Giles and Powesland 1975, Coupland 1985).

The distinction between linguistic and psychological convergence and divergence is further demonstrated by Thakerar et al's 'subjective' and 'objective' categories, which were mentioned briefly above. In their studies with high and low status speakers, in which status depended on relative expertise on a particular task, it was found that speakers shifted their speech styles to where they believed their interlocutors to be, regardless of the reality. Thus, high status speakers slowed down their speech rate and made their speech less standard, while low status speakers did precisely the opposite. Psychologically they were converging with one another (though as was pointed out above, this was for completely different reasons) whereas linguistically they were diverging to stereotypes of one another's speech. Moreover, the style shifts were found to be operating at a subconscious level, since when asked to rate their own performances, subjects were unaware of any changes in their speech rates or pronunciation (Thakerar et al. 1982).

The latest developments in accommodation theory have involved a broadening of its scope of enquiry. Coupland and Giles argue on the basis of their own theoretical work that "taking account of a broader spread of possible 'addressee orientations' will lead to a far wider range of sociolinguistic strategies being invoked under the rubric of accommodation than the 'conventional' categories of convergence, maintenance and divergence" and they recommend that "the model should cease to be concerned *only* with 'speech' phenomena" but that "communicative accommodation can usefully be construed as the full range of interpersonal addressee-oriented strategies in discourse whereby speakers 'attune' their talk to some characteristics of the hearer" (1988:178; emphasis in original).

Since the late 1980s, accommodation theory has accordingly broadened its focus to include non-verbal and discursive dimensions and, as already stated, has adjusted its name to 'communication' accommodation theory in order to express this growing concern with phenomena other than speech. The newer emphasis on discursive elements is reflected in the range of discourse attuning strategies proposed by Coupland, Coupland, Giles and Henwood (1988), in which accommodation is viewed in terms of discursive and sequential acts. One such set of discourse attuning strategies is that of 'interpretability' strategies, by which speakers are said to modify the complexity of their speech (eg. by limiting the vocabulary range and simplifying syntax) and to increase its clarity (eg. by adjusting

prosodic features such as pitch, loudness, tempo, or by incorporating interaction features such as clarification checks and repetition, and selecting familiar topics) as a result of having assessed the addressee's interpretive competence.³ Another set of discourse attuning strategies is composed of 'discourse management' strategies, whereby speakers attend to the addressee's conversational needs, facilitating his contribution to the conversation by, for example, offering speaking turns or repairing problems. A third set is 'control' strategies, by which speakers attend to role relationships within interaction. This expanded account of CAT enables it to explain the fact that accommodation is frequently achieved strategically in situations where it would be irrelevant or even inappropriate for speakers to match one another's linguistic behaviour.

In proposing this updated, "reformulated SAT", Giles et al. argue that "SAT presents a broad and robust basis from which to examine mutual influences in communication, taking account of social and cognitive factors, and having the scope to cover the social consequences of speech shifts as well as their determinants and the motivations underlying them. Furthermore, it is applicable to a broad range of speech behaviors, and nonverbal analyses potentially, with the flexibility of relevance at both interpersonal and intergroup levels" (1987:34). For the future, they suggest, among other things, that "an SAT perspective might have applied relevance for situations rife in potential miscommunication and misattribution" (ibid:41). With this in mind, I move on to examine research conducted within the accommodation framework into interaction involving non-native speakers of English, and to discuss the extent to which this framework can explain IL style-shifting, particularly as it relates to phonological error.

6.2 Non-native speakers and the accommodation framework

A problem for research into accommodation in NNS settings in the past was that most of the previous work had been conducted in either dialect or fluent (bilingual) second language contexts. More recently, there has been some growth in the study of second language learners in interaction with NSs and even with other NNSs within the accommodation framework. However, much of this work has been of a descriptive nature rather than being harnessed to sociolinguistic theory and explanation (Zuengler 1991). Moreover, as was pointed out in the previous chapter, accommodation theory along with the other sociolinguistic theories of interlanguage variation is often discussed with little by way of empirical support from L2 data. In the case of accommodation theory, both in its original

³ Although the present research is looking specifically at phonological IL variation and therefore does not have the scope to pursue this line of enquiry, it would be an interesting one to follow in future research into miscommunication in ILT.

form as SAT and in its expanded form as CAT,⁴ writers tend to rely largely on L1 data and/or anecdotal evidence (for example, Faerch and Kasper 1987, Beebe 1988, Tarone 1989). Thus, although accommodation theory has begun to be recognised as having the scope to account for synchronic variation in interlanguage, there is as yet no large body of L2 data to give substance to the view (Zuengler 1991).

6.2.1 Research on interlanguage variation conducted within the accommodation framework

We will now consider a number of studies of interlanguage variation conducted within the accommodation framework. The majority of these studies, like the present research, focus on phonological variation, though unlike it, they do not necessarily postulate communicative efficiency as the principal motivation underlying the accommodative strategies which they observe. One of the earliest studies, Beebe 1977, investigated the effect on the phonology of seventeen Chinese-Thai bilingual teachers in response to the changing identity of the interviewer. Each teacher was interviewed by both a Chinese interviewer who had no social dialect in Thai, and by a Thai interviewer. Nine phonological variables were then examined, and it was found that the subjects used more Thai variants in conversation with the Thai interviewer and more Chinese variants with the Chinese interviewer, thus demonstrating linguistic convergence of the subjects to their interlocutors.

Two other early studies also by Beebe, involving Chinese-Thai and Puerto Rican children respectively, demonstrate that the ethnic identity of the interlocutor can cause the speaker to style shift in an attempt to converge to the latter's speech. However, as Zuengler (1991) points out, these studies were not originally devised to test CAT, so that one cannot be entirely confident that the outcome would have been identical if they had been. In the Chinese-Thai study (Beebe 1981), 61 Chinese-Thai children who were fluent in Teochiu Chinese, their first language, as well as in Thai, their second, were interviewed twice in Thai, once by an ethnic Thai interviewer and once by an ethnic Chinese interviewer who spoke Thai without a Chinese accent. Beebe analysed the pronunciation of six vowels in the children's L2 Thai, and found that they produced a Thai variant for five of them significantly more often when speaking to the ethnically Thai interviewer than to the ethnically Chinese interviewer. At the same time, their Thai contained some Chinese variants when they addressed the latter. Beebe concludes that the subjects were converging linguistically to the Thai interviewer but psychologically to the Chinese, and thus subjectively to a stereotype of Chinese-Thai speech, rather than objectively to their Chinese-Thai interlocutor's output.

⁴ As was pointed out above, very little L2 research has as yet been conducted within the CAT framework.

The Puerto Rican study, reported in Beebe and Zuengler 1983, involved Puerto-Rican monolingual and bilingual children who each spoke in English with three different interviewers, one a monolingual native speaker of English, the second an English-dominant Hispanic and the third a Spanish-dominant Hispanic. Both the monolingual and bilingual subjects converged with all three interviewers on speech quantity. However, convergence with the English-dominant Hispanic was weaker than that with the other two interviewers, a finding that was attributed to a preference for members of one's own ethnic group to maintain a distinctive L1 accent in a second language (Segalowitz and Gatbonton 1977). In addition to objective convergence in terms of quantity of speech, this study, like the previous one (and the findings of the present research: see Chapter Seven, for example, pp.152-154), also revealed evidence of linguistic divergence that was probably motivated by the desire to converge. When error quantity was examined, the subjects were found, surprisingly, to have lower accuracy in conversation with the native speaker of English than with the bilingual Hispanic and, therefore, to diverge from the former. This is explained by the fact that the subjects were taking greater risks in terms of the complexity of their language with the native English speaker, in an attempt to converge linguistically with him. However, we are not informed as to whether the speech of the native English speaker was, in fact, more complex, so it is not clear as to whether we are dealing here with subjective convergence (to the children's stereotype of where the native English speaker was) or to a failed attempt at objective convergence.

The remainder of the studies to be described were conceptualised from the start within the accommodation framework. One of these is Young's 1988 study, which investigated the effect of the interlocutor on NNS morphology, specifically the production of noun plurals. Young hypothesised that the degree of social convergence between twelve Chinese subjects (divided into high and low proficiency) and their two interviewers (one a native English speaker and the other an English speaking Chinese) would correspond positively to the degree of linguistic convergence between them, thus causing more native-like plural forms with the NS interviewer and more nonnative-like plural forms with the Chinese. He defined social convergence as being composed of six components: ethnicity, sex, occupation, educational level, place of origin and age, and from these composed a "convergence index". However, as Zuengler points out, "Young used rather gross categorical measures of each of the six components of social convergence in order to come up with a "convergence index", since assessing whether dimensions such as educational level or occupation are the "same" or "different" is a complex matter (1991:226).

Young's results are significant for high proficiency subjects interacting with the native speaker, (with low social convergence with the native speaker relating to a decrease in the number of target-like forms), but non-significant for low proficiency subjects generally and for high proficiency subjects interacting with the native Chinese speaker. Young concludes that his high proficiency subjects had acquired sociolinguistic competence, thus the appearance in their speech of socially sensitive variation, whereas his low proficiency subjects had not. Commenting on a later publication of this study (1989), Preston states that Young's findings suggest that for lower proficiency subjects, linguistic environments are more likely to be powerful than sociolinguistic environments (1989:256). Young himself interprets the significant results from his high proficiency subjects as showing that linguistic variation is not caused by ethnicity alone, but by a range of dimensions including ethnicity.

Rampton's (1987) description of the divergence of Pakistani children in an English class in Britain from their English teacher is anecdotal and relates to a fluent English as a second language situation. However, it is of interest because of its support for Young's findings of low social convergence leading to morphological divergence. Rampton notes that the children, who had in their repertoires two forms of the negative, the standard "I don't....." and the non-standard "me no", used more of the latter type when addressing their teacher, whereas the 'attention to speech' criterion would here predict an increase in the use of the standard form (Tarone 1988:91). Rampton therefore suggests that the children were using the non-standard variant to stress their solidarity with their own ethnic group as opposed to that of their teacher, from whom they therefore diverged.

Returning to phonological variation, Zuengler (1982) investigated the effect of ethnically threatening speech, as compared with ethnically neutral speech, on second language pronunciation, predicting that the latter would diverge from the standard English speaking NS interlocutor to become more nonnative in character. The thirteen Spanish and Greek subjects responded first to a neutral topic and then to an ethnically threatening comment, and their responses were measured in terms of three phonological variables. Those subjects who responded to the threatening comment subjectively were found to diverge from the interlocutor on these three variables, whereas those who responded objectively became more standard, thus converging with the interlocutor and diverging to maintain distinctiveness from their own ethnic group. Zuengler herself later criticises this study, arguing that its results are "tentative" since the division of the subjects into two groups was done according to the nature of their responses and, therefore, a "post hoc analysis": no prior information on the degree of each subject's ethnic identification had been collected for comparison with their responses to the ethnically threatening behaviour (1991:228).

Berkowitz (1986, reported in Zuengler 1991), on the other hand, studied subjects' responses to ethnically empathic behaviour. The somewhat convoluted hypothesis predicted that subjects would diverge linguistically from an NS interlocutor whom they perceived as empathic towards them, to become less native-like, due to psychological convergence, itself the result of the subjects' feeling more relaxed with an empathic interlocutor and not anxious to produce their best English. Berkowitz divided 52 Dominican Spanish L1 speakers into two groups. The experimental group were shown a video of a teacher behaving in a culturally empathic way towards her students, while the control group were shown the same teacher behaving in a neutral manner. The subjects from both groups were then interviewed by the teacher and finally given a questionnaire in which they were asked to indicate on a scale their perception of the teacher's degree of cultural empathy. The subjects' speech from the interview was examined on five phonological measures. The results were mixed. They were nonsignificant when the experimental and control groups were compared. However, when the subjects were grouped according to their rating on the questionnaire of the teacher's empathy, a significant negative correlation was found on one of the measures, whereas a significant positive correlation was found on two others. The former correlation therefore supported the hypothesis but the latter two had the opposite effect. Berkowitz thus demonstrates psychological convergence leading to both linguistic divergence and convergence, an unsatisfactory result, which may owe something to the specific phonological measures under observation, and perhaps involve the relative ease for the subjects of converging on particular pronunciations (see section 6.3.2 on the issue of the NNS's phonological repertoire/competence).

Zuengler's 1987 study is a replication, though using dyads composed of one NNS and one NS rather than two NSs, of Thakerar et al's (1982) investigation of the effect of unequal status on speech. In the latter study, unequal status was created by means of pairing off subjects of differing expertise for the task that they were to perform. As described in the previous section, the subjects were found to diverge from one another linguistically or objectively, but it was argued that they were actually converging subjectively by adjusting their speech towards their stereotype of their partner's speech. Zuengler's study also used the concept of relative expertise at a task to create a status imbalance. She hypothesised that the NNS-NS partners (45 native Spanish speakers and 45 native English speakers) would converge subjectively to their stereotypes of their interlocutor's speech style, which would result in relative experts decreasing their standardness or, in the case of the NNSs, their correctness, and relative non-experts increasing their standardness or correctness, as compared with the speech of a control group. The subjects were divided into three groups, given an art judgment test, asked to have a conversation about their judgments and then

given an art judgment test, asked to have a conversation about their judgments and then given a second test, to be followed by a second conversation. Before having the second conversation, however, two of the groups were given "feedback" on their performance on the tests. In one of the groups, the NNS partners were led to believe that they had performed very well whereas the NS partners had not and in the second, the reverse situation was conveyed. The third group, the control, was told nothing. The degree of standardness or correctness was assessed on four phonological measures for the NS subjects and five for the NNSs.

Zuengler's results were significant only for the non-experts, and were limited to one phonological variable for the NSs and another for the NNSs. However, whereas the NS result supports Thakerar et al's findings, in that the NS non-experts significantly increased their standardness of their significant variable, the NNS result moves in the opposite direction. since the NNS non-experts actually decreased their correctness of theirs. Zuengler suggests as a cause that the NNS non-experts, who may already have felt themselves to be dominated ethnolinguistically and treated as subordinate by NSs, may have lacked any motivation to try to recoup self esteem and given up aiming for correctness. However, it seems more likely that in their role as 'non-experts', these NNSs were focusing their attention so closely on content that they were unable to monitor linguistic aspects of their output. In such a situation, L1 phonological transfer would have occurred automatically (cf. pp.160-161). On the other hand, as far as the NNS 'experts' are concerned, any decrease in the standardness (or in the case of NNSs, correctness) of pronunciation was unlikely as this would have hampered effective communication and, moreover, led to linguistic *divergence* from the NS interlocutor.

Zuengler 1989a reports analyses of further performance measures that were carried out on the same data subsequent to the 1987 article, and arrives at some different conclusions. These will be discussed in detail as they point to some possible differences between the way accommodation functions in NS-NS and in NNS-NS interaction. The first of these measures to be analysed was speech rate. If the subjects followed the pattern established in Thakerar et al. 1982, the experts would decrease their speech rate from the first to the second conversation, while the non-experts would increase theirs. This did not happen, there being no significant difference between the two experimental groups and the control group. However, to ensure that the overall figures for NSs and NNSs were not hiding convergent or divergent patterns within dyads, twelve dyads in each experimental group (that is, NNS experts or NS experts) were analysed for speech rate divergence in the former and convergence in the latter. Convergence as opposed to divergence was predicted

for the NS experts because of the different baseline speech rates of the two speakers in each dyad.⁵

The results of the speech rate analysis showed no tendencies in either direction, which, together with the results of the analyses of the phonological variables, leads Zuengler to argue that "important differences between NS-NNS interactions and NS-NS interactions call into question the applicability of a SAT paradigm as conceptualized in the Thakerar et al. (1982) study" (1989:58). For the NNS experts were unlikely to slow down their speech rate as they felt themselves already to be speaking more slowly than their NS partners. On the other hand, the NNS non-experts did not speed up their speech rate because it was not within their ability to do so. Meanwhile, the NS non-experts were not likely to increase their speech rate as they were already speaking faster than their NNS interlocutors. The only inexplicable phenomenon, then, is the fact that the NS experts did not decrease their speech rate. Zuengler suggests that because of the previously mentioned factors, "speech rate was not "chosen" by the NS-NNS dyads in this study as a mechanism of speech accommodation" (ibid: 59).

The picture grows more complex with the analysis of the same data on four further measures: amount of talk, number of interruptions, moving the task along and winning the speaking turn. As far as amount of talk is concerned, the NS subjects talked more than their NNS partners in all conditions, while on being assigned expert status, a significant number of NSs increased their amount of talk. On the other hand, the NNS subjects were found to interrupt more often than their NS partners in all three groups, though less successfully than their partners in the control and NS expert groups. However, in the NNS expert group, they interrupted both more frequently and more successfully than the NSs. A similar pattern emerges for both moving the task along and winning the speaking turn, with NNS experts doing so more often than their NS interlocutors. Zuengler explains these results in terms of dominating behaviour, pointing to both ethnolinguistic dominance, due to their higher linguistic status, of the NSs in the control group and dominance of both NSs and NNSs in expert-status roles.

Zuengler therefore points to two limitations of SAT in explaining the performance of her subjects. Firstly, the limited linguistic proficiency of the NNSs may prevent them from making accommodative moves in the predicted directions (see section 6.3.2 for further discussion of this issue). Secondly, attempting to explain performance in terms of

⁵ In other words, the NNS subject already speaks more slowly than the NS and thus, when the latter assumes high status and slows down his speech, he does not diverge from his interlocutor as he would from another NS.

accommodation alone leads one to run the risk of ignoring other equally or more important dynamics such as dominance, which may be operating at the same time (though it should be pointed out that dominance and power are not excluded from the original accommodation framework).

As far as Zuengler's first limitation is concerned, further research is needed to assess its extent in a variety of equal and unequal status NS-NNS, as opposed to NS-NS, situations. Thakerar et al. argued their case for psychological and subjective convergence causing linguistic divergence by focusing on the dimensions of phonology and speech rate. Their (NS) non-experts became more standard and faster in speech in order to appear more competent and recoup their self-esteem, while the (NS) experts became less standard and slower in order to increase their comprehensibility. In an NS-NNS situation, it is possible that the demand for comprehensibility makes this a more salient dynamic of the interaction than any other (the desire for identification with the other, the need to appear competent and so on). Failure to speed up or slow down, and to become more or less standard or correct, can then be seen as functions of this demand.⁶ Indeed, the NS non-experts may have actually been attempting to converge linguistically to their NNS expert interlocutors' speech in the manner of foreigner talk (see 6.2.2), thus becoming *less* rather than *more* standard.⁷ The problem still remains, however, as to why the NS experts did not slow down their speech rate.

Zuengler's second limitation may also prove to be less problematic than at first appears. It is possible that the so-called "dominating" behaviour at least of the experts could be explained by complementarity. The experts, both NS and NNS, are likely to adopt a more authoritative, information-giving role as compared with that of the non-experts, leading to a relationship in some ways akin to those of interviewer/interviewee or teacher/student. However, the NNSs in this authoritative role are restricted in the strategies available to them by their relatively lower communicative competence in the second language. Thus, while they are able to interrupt, move the task along and win speaking terms, they cannot increase their amount of talk because they are simply unable to process more words in their second language. In other words, the NNS experts may be attempting to accommodate psychologically to their interlocutors, by means of establishing a complementary relationship, but falling short of the mark in some respects.

⁶ Though as has already been pointed out, one must also consider the serious limitations imposed on NNSs by their repertoires. As Zuengler claims, "linguistic proficiency ... may prevent or weaken any tendency towards accommodation" (1989a:65)

⁷ Though the only information we have is that they did not become more standard in the way that Thakerar et al. would have predicted.

Zuengler's study thus highlights two factors which are of great relevance to the present research, and both of which should be taken into consideration when evaluating NNS data within an accommodative framework (and see section 6.3.2 for further discussion of these factors). The first relates to the NNS's ability to converge. For while NNSs may desire strongly to converge their speech on that of their interlocutors, they may lack the repertoire to do so. Although this can also be true of NSs in inter-dialect communication, it is likely to occur to a far greater extent in NNS speech, both in communication with NSs and, for reasons that will be discussed in the next chapter, even more so in ILT. The second point is that where successful communication is the most salient factor for the NNS, he is unlikely to adjust his speech in any way that will act to the detriment of communicative efficiency. Indeed, it may be that in any NS-NNS interaction where the NNSs are not fluent bilinguals, regardless of whether interlocutors are of different status, comprehensibility takes precedence over all other considerations, leading to the more frequent appearance of objective linguistic convergence than of the subjective convergence/ linguistic divergence paradigm of Thakerar et al.'s subjects. The investigation of NNS-NNS interaction, or ILT, the main focus of the present research, will yield further differences from both NS-NS and NNS-NS interaction, in the way accommodation operates within it.

Flege (1987) also offers evidence which supports accommodation theory on an acoustic level, and shows the influence of NS interlocutor on both L2 and first language sounds. He measured voice onset time and vowel formants in the speech of French speakers of English and English speakers of French, and found that the advanced learners' production of similar sounds in the target and native languages appeared to grow close together, a phoneme in the target language becoming more native-like, while in the native language becoming more target-like. Flege also found, when interviewing two monolingual French speakers in his "obviously English-accented French, that their productions of /t/ in their native language became more English-like.

Two studies have demonstrated interlocutor effects at the level of discourse. Cathcart (1983, reported in Tarone 1988:55, 88-89) collected L2 data from eight bilingual Spanish children studying English in California, interacting both with their peer group and with adults. Looking firstly at conversational control, she found that the relationship of authority between the children and their interlocutors affected the relative frequency of their control behaviour and information-sharing behaviour, with the former being more prominent in interaction with other children and the latter with adults. Turning to conversational control, Cathcart notes that when the children were in control, such as during break, they used a wide range of communicative acts and syntactic structures, whereas when an adult was in control, they spoke in a more formulaic manner. Tarone considers that "the evidence of

variation at the discourse level which is described by Cathcart does not seem to fit easily into the SAT framework of convergence/divergence" (1988:89). It may, however, be better approached from the perspective of the strategies that have recently been incorporated into SAT, leading to the widening of the latter's focus and its change of title to CAT. Cathcart's data would seem to fit in more easily with the second and third set of 'discourse attuning' strategies, namely the 'discourse management' and 'control' strategies (see section 6.1 above).

The second study of interlocutor effects at discourse level is that of Aono & Hillis (1979, also reported in Tarone 1988:91-92). In this study, the data were gathered by one of the researchers himself, who was also a Japanese student of English as a second language. Aono recorded two of his conversations in English with different interlocutors, the first with a psychology professor in which the speakers discussed Aono's research paper on second-language acquisition, and the second with Hillis, a fellow student, in which Aono told the latter a story. Some major differences in style emerge. For example, several chunks of Aono's speech to the professor contain fewer errors, false starts or hesitations than does his speech to Hillis. However, in many other parts of the conversation, there are more hesitations, pauses, glottal stops and false starts than in the Hillis conversation. Because of the research design, Aono was able to report his own perceptions of his style-shifting between the two conversations. He accounts for the chunks of error-free speech with the professor as the result of having mentally practised what he intended to say, because of prior feelings of discomfiture about the conversation, whereas he felt rather less uncomfortable at the prospect of talking to Hillis and did not bother to prepare himself in this way.⁸ On the other hand, he felt the pressure of time in his conversation with the professor, and this factor is reflected in the hesitations, pauses and so on. Here, once again, the discourse attuning strategies may go some way to account for the subject's language variation. For example, by rushing his own contributions to the conversation with the professor, he is attending to his interlocutor's supposed need for a speedy resolution to the discussion, as well as providing him with speaking turns more quickly (discourse management strategies) and, at the same time, is attending to his and the professor's role relationships within the interaction (control strategies). However, since the variables of topic, status and interlocutor are confounded in this study, it is difficult to explain the outcomes with any certainty.

Before drawing some conclusions as to CAT's potential explanatory power to account for IL variation in ILT and looking more closely at the aspects of CAT which have direct relevance for the present research, I will briefly discuss in the following section the way in

⁸ See Ochs 1979 on differences between planned and unplanned discourse.

which accommodation theory can be applied to foreigner talk. Although the latter concerns adjustments made in the speech of an L2 speaker's NS interlocutor, it is of interest in the present context because of the part played in such speech of the motivation of communicative efficiency.

6.2.2 *Accommodation theory and foreigner talk*

The phenomenon of foreigner talk (henceforth FT) was first documented in the early 1970s, the term having been introduced by Ferguson in 1971. It refers to the simplified register which NSs use to address NNSs and is, Ferguson suggests, like baby talk, a reflection of NSs' beliefs about the way NNSs speak. Arthur et al. describe FT as arising from language users' "unconscious ability to make a number of coordinated adjustments in their language that have the net result of simplifying and facilitating communication" (1980:113), thus making a case for accommodation motivated by communicative efficiency. They argue that such simplification can be elicited by an interlocutor's non-native accent. Meisel (1980) regards the simplification strategies of FT as being parallel to the strategies used by NNSs but independent of them, reflecting a common set of cognitive processes, rather than being based on imitation.

Much information relating to FT's linguistic features has been gathered. The most salient characteristics are generally agreed to be the following: less syntactical complexity, the use of higher frequency vocabulary, more clearly articulated pronunciation (to the extent of making the NS sound completely unnatural, for example, by pronouncing the indefinite article as /eɪ/,⁹ or substituting weak forms with strong forms inappropriately), slower speech rate, more questions (often for the purpose of checking understanding), and fewer contractions and pronouns, as well as a general tendency to speak more loudly and to repeat. However, there is still no general agreement as to exactly what it is that triggers foreigner talk, or why FT varies across NSs, or across combinations used by the same NS on different occasions.

A further problem arises with the observation that FT may contain a degree of ungrammaticality, reflected in the use of a kind of "pidgin" English involving, for example, the omission of articles, and in the echoing of NNS errors such as "you no like" (cf. Larsen-Freeman and Long 1991 for a review of studies of ungrammatical FT). Ellis points out the "striking similarities between ungrammatical FT and learner language" (1994:252).

⁹ However, there is a growing trend in NS speech to do precisely this, with the strong form of 'a' often being followed by a filler such as 'erm'. It is especially prevalent among politicians in particular and media interviewees in general, and appears to have the dual function of providing planning time and giving salience to the following word. However, this is the result of personal observation: as far as I am aware there has as yet been no research into this phenomenon.

Meisel (1980) in fact suggests that FT can be "worse" than a NNS's speech. Researchers are in some disagreement as to whether grammatical and ungrammatical speech are part of the same phenomenon. Ellis (1994) considers that NSs may introduce ungrammatical forms into their speech as part of the process of accommodating to their NNS interlocutors. On the other hand, Arthur et al. (1980) contend that such ungrammatical speech is never found in the FT of educated NSs of American English, and suggest reserving the term 'foreigner talk' for NSs' ungrammatical speech to NNSs and 'foreigner register' for their grammatical speech.

Two studies, Varonis & Gass 1982 and Gass & Varonis 1985a, investigate what features of non-native speech elicit FT. The 1982 study reveals that when NSs were asked for information by both other NSs and by NNSs, they differentiated between the two groups in terms of the forms of response used, even when the NNSs had spoken in grammatically correct language: when replying to the NNSs, they repeated the most important part of the message, usually with rising intonation such as would normally be associated with a question. The study went on to investigate why this should be so, and found that when NSs evaluate and react to the speech of NNSs, the most salient factor is "the comprehensibility of the total linguistic input from the non-native to the native" and that such comprehensibility "may be achieved in a number of different ways through the interaction of various linguistic and social factors", which the authors consider to be pronunciation (a major factor), grammar, familiarity with topic, familiarity with person, familiarity with speaker's native language, fluency and social factors (1982:132).

The 1985a study builds on that of 1982 along with other work of the same authors. For example, Gass & Varonis 1984 found that an NS's familiarity with non-native speech in general affected positively the NS's ability to understand a particular NNS. This in turn is likely to reduce the amount of FT used by the NS (a point not made in the study). Gass & Varonis 1985a demonstrate that NNS proficiency is determined mainly by pronunciation, fluency and comprehension. During the course of an interaction, the NS subjects appeared to reassess their NNS interlocutors (particularly those of high level) on the basis of their own ability to understand them (this ability at least partly determined by the latter's pronunciation), and modified their speech accordingly. Modifications were greatest for those NNSs who had been involved in a large number of negotiations of meaning during the middle section of the interaction. The authors account for this by suggesting that the NSs had been able to determine that their NNS interlocutors were more difficult to understand than they had originally thought them to be. Their 1985a findings lead the authors to claim that "comprehensibility is one variable that triggers NS speech modification" or, in other words, FT. They also suggest that "it is intuitive that NS

modifications to NNSs are made for the purpose of increasing the possibility that the NNS will comprehend" (ibid:54). However, they point out that this process may take the form of perceived rather than actual comprehension of the NNS, since the authors had shown in their 1982 study that evidence of lack of comprehension was not a precondition for FT. Indeed, such talk was used before the NNS had demonstrated either comprehension or the lack of it.

Carpenter (1983) looks specifically at the issue of the difference in questioning behaviour of NSs to other NSs and to NNSs. Her investigation was carried out within a university context in interactions between university professors and their students, a context which, she claims, "all but prohibits the use of utterance-level foreigner talk features" (ibid:193). Nevertheless, she finds some noteworthy differences in the way the two categories of students, NS and NNS, were addressed. Of particular interest is Carpenter's observation that the professors asked the NNS students many more clarification questions than the NS students. She suggests that these questions may have been a function of the professors' expectations that their NNS students would be difficult to understand, because of a mismatch in the interlocutors' 'contextualisation cues', ("the selection and combination of verbal, paralinguistic and nonverbal elements in interlocutors' speech styles which enable them to make accurate interpretations of each other's intended meanings as they converse", ibid:189), rather than a strategy to facilitate the conversation or as the result of the requirements of the ongoing interaction. Thus their FT appeared to be produced in response to a stereotype of their NNS students rather than to objective evidence.

We therefore have some possible explanations as to why FT is used: as a response to the incomprehensibility of nonnative speech, as a response to apparent NNS lack of comprehension, and as a function of NS stereotypes of their NNS interlocutors. However, none of this explains the variation that is found in foreigner talk. Zuengler suggests that placing foreigner talk within the communication accommodation theory framework "will clarify much of the variationand bring a coherence to the literature" (1991:235). Basing her work on Coupland, Giles and Henwood (1988), Zuengler starts by examining NS goals in communicating with NNSs. She claims that many of these coincide with the speaker goals conceptualised in CAT, particularly the desire for communication efficiency and mutual comprehension. As has already been stated, increased intelligibility may be the principal motivation for convergence. Likewise, it may be a particularly strong goal in certain types of NS-NNS interaction and, as Zuengler points out, observers have noted a greater use of FT when NSs and NNSs are involved in a two-way exchange of information than in one-way communication from the NS, as a result of a greater concern for mutual comprehensibility. Other goals in the CAT literature include gaining the interlocutor's social

approval and maintaining distinctiveness. Again, FT may be motivated by similar goals. Indeed, it may be possible to invoke the desire to maintain distinctiveness to account for non-employment of FT and, thus, the fact that it does not always occur in NS-NNS interaction (op.cit:236).

Zuengler claims that for many NSs interacting with NNSs, two dimensions are salient: perceived ethnic and cultural differences, and the NNS's linguistic or communicative competence. She argues that the NS partner, having one of the goals mentioned in the previous paragraph, and perceiving particular NNS characteristics, will encode the strategies of convergence, divergence or maintenance. Thus, FT adjustments to speech rate, pronunciation and so on can be explained as the manifestation of convergence, and a lack of FT features as the manifestation of maintenance or even divergence, reflecting an NS interlocutor's desire to maintain distinctiveness from his NNS partner. Variation in the degree of FT used can thus be interpreted as variation in the degree of convergence. Accommodation theory is also able to account for the inclusion in foreigner talk of the echoing of NNS errors as the NS's attempt to make his speech more similar to that of his NNS partner. Variation in FT, including grammatical variation (see pp.128-129), and lack of FT altogether are thus explained by taking an accommodative perspective.

One further aspect of accommodation theory that has relevance for FT is the phenomenon of "overaccommodation" (see section 6.1). Zuengler relates the three types of overaccommodation formulated by Ryan et al. (1986) to NS-NNS interaction. First, "sensory overaccommodation", which refers to the speaker's overdoing convergence when he perceives his interlocutor to be handicapped. In FT terms, suggests Zuengler, this can result in an overproduction of FT features if the NS interlocutor's goal is NNS comprehension of the message and he perceives the NNS to be linguistically handicapped. The NNS addressee, however, is likely to interpret such overuse of foreigner talk as patronising.¹⁰ Second, "dependency overaccommodation", in which the addressee perceives himself as being placed in a lower status role in which the speaker controls the interaction. It follows that FT could be interpreted by the NNS interlocutor as intended to signify his lower position and as a means of enabling the NS to control the conversation. Third, "intergroup overaccommodation", where the addressee perceives that the speaker's language strategies are designed to make him feel as though he is being treated as a member of a group rather than as an individual. The use of FT could therefore imply to the NNS addressee that he was simply being labelled a foreigner, and could lead him to evaluate such talk negatively. Thus, although the motive for FT may be to improve communication

¹⁰ Cf. Platt and Weber 1984 on the angry reactions of Aboriginal addressees in response to exaggerated FT.

with NNSs, it may be evaluated quite differently by the recipients. Again, viewing FT from within an accommodation framework can account for this not uncommon reaction.

Accommodation theory therefore potentially enables us to account for variation on both sides of the coin in NS-NNS interaction, for not only does it offer an explanation for variation in interlanguage, but also on the part of the NS interlocutor. In the final section of this chapter, I will therefore discuss the judgements of various writers on the extent to which CAT is indeed able to explain IL variation, and then look more closely at the two aspects of the theory which have the greatest relevance for the studies which follow in Chapter Seven.

6.3 Conclusions

6.3.1 Judgements of CAT's ability to account for IL variation

Tarone summarises her account of the empirical evidence of interlocutor effect on interlanguage variation by making two points: "first, there does seem to be clear evidence that second-language learners produce different variants in response to different interlocutors; but, second, there are surprisingly few studies documenting this effect. There are a number of interesting hypotheses which could be explored by further research, but clearly more data are needed" (1988:92). Referring specifically to SAT,¹¹ she reiterates Beebe's (1982) claims that the approach provided by SAT has a number of advantages over the 'attention to speech' model: "it focuses upon determinable social and social-psychological factors like multiple group membership and more directly inferrable factors like identity assertion as causes of IL variation rather than postulating an unobservable intermediary process of 'attention'it allows the researcher to determine the origin of the variants which make up the different styles of interlanguageto analyse interlanguage as well as foreigner talk and code-switching within the same framework..... to study shifts in amount of talk, speech rate, duration, pause and utterance length, stress, pitch, intonation, and even in the content expressed - none of which are factors easily analysed in terms of grammatical correctness" (Tarone 1988:49)

On the other hand, like Zuengler 1991, Tarone identifies some problems in the application of SAT to interlanguage variation (see also 5.2). Firstly, as has already been pointed out, most of the work has been done with dialect speakers (or fluent bilinguals) rather than with second language learners. Thus we have not yet accumulated sufficient second language

¹¹ The term 'SAT' will be used henceforth in preference to 'CAT' only when a source under discussion employs it.

data to examine within the SAT framework. Second, though to an extent less relevant than it was when Tarone wrote it, is her claim that the theory is only in its early stages of development. She considers that more detailed linguistic analysis is needed, since many of the studies other than those of Beebe focus on social rather than linguistic factors. Third, she considers that some style shifts in interlanguage are not caused by interlocutor effect, but by situational norms and "the communicative demands of different genres" and, therefore, "group membership and the individual identity assertion associated with it may be only one out of several possible causes of interlanguage variation" (ibid:50-51). Zuengler (1989a), as reported above, has also argued that SAT is not the only explanation for either L1 or L2 sociolinguistic variation, and has pointed to "dominance" as one of several possible dynamics operating in expertise-salient interaction. Zuengler's objection was considered above. Tarone's third point can be countered with the argument that the current accommodation (CAT) framework does not limit the causes of IL variation to "group membership and individual identity assertion". The communicative efficiency motivation is also considered an important factor, particularly in NS/NNS communication, and is thought by some, including the writer, to be the most salient factor in ILT (see section 6.3.3). It should be added that "the communicative demands of different genres" are likely to be inextricably bound up with interlocutor effect.

Zuengler has more recently suggested that CAT research on both L2 and L1 lacks "a theory-based rationale for selecting particular linguistic items to study", adding that the criterion for the selection of linguistic measures in the studies she has discussed has been "simply to choose items that are already known to vary". The problem with taking this course of action, she argues, is that research into second language acquisition has shown that some of the variation in interlanguage is developmental rather than sociolinguistic. She therefore considers it important for researchers into language variation "to determine whether particular variables are subject to *social* conditioning, and if so, why", and goes on to describe a study of her own which supports Trudgill's suggestion that the sounds most likely to undergo accommodative style shifts are those that are stereotypes (Zuengler 1991:233, emphasis in original; see also Zuengler 1988).

Like Tarone, Zuengler refers to the small number of studies on second language interactional variation, as well as to the fact that some of them have been inconclusive. She suggests, however, that the latter is not a problem with CAT, but "may be due to problems in interpreting unpredicted directions of shift in several of the cases, the possibility of choosing the wrong variables (and revealing only limited effects), small numbers of subjects in some of the studies, and post hoc analysis in others" (1991:233-34). To this, one could add that virtually no research on IL variation has as yet tried to interpret its data

within the recently expanded framework of CAT, and in thus ignoring the potential of the strategies involved in discourse attuning, researchers may be limiting the application of CAT to their data unnecessarily. One could conclude with Zuengler that despite the problems, "CAT appears promising as a theory of L2 sociolinguistic variation" and that "it is essential that further research be conducted within a CAT paradigm to determine the extent to which the theory can help us explain the complexities of nonnative speech" (ibid.).

6.3.2 The application of CAT to variation in ILT: two central issues

The following chapter will examine ILT data from an accommodation perspective in order to support the claim that phonological IL variation, at least in ILT, is due largely to interlocutor effect. However, before doing so, it will be helpful to pinpoint and discuss in greater detail two aspects of the theory which have particular relevance for its application to IL variation within the context of ILT. These issues, both of which were raised in the discussion of Zuengler's 1987 study (cf. section 6.2.1 above) are, respectively, the communicative efficiency motivation and the problem of the L2 speaker's repertoire.

Several sources attest to the growing significance that researchers have begun to attach to communicative efficiency. Discussing accommodation at the level of content, Giles and Smith (1979) had already focused on the communicative efficiency issue in the earlier days of SAT. They drew attention to the fact that speakers take into consideration the listener's knowledge and converge with him by, for example, using less jargon with an interlocutor who does not share their expertise, in order to increase mutual intelligibility. The first study to draw attention specifically to the possibility that increased intelligibility rather than social approval may be, in many cases, the central motivation for accommodative behaviour was that of Thakerar et al. (1982, and see section 6.1 above). Others have subsequently taken up their claim. For example, Bell argues that "In concentrating on approval seeking as a reason for style shift, accommodation theory has often overlooked a more transparent motivation: a speaker's desire to be understood" (1984:199). Coupland (1984), reporting a personal communication from Thakerar, suggests that communicational efficiency is more relevant than social approval in his own study of accommodation in a travel agent setting. Giles and Coupland (1991) have also described it as being at times the principal motivation underlying convergent behaviour.

Where interlocutors have different accents, particularly in bilingual situations, mutual intelligibility becomes an increasing problem and, as Bell argues, "the sharper the linguistic differences between codes, the larger the issue of intelligibility looms, the stronger are the pressures to accommodate to the audience" (1984:176). Two studies lend support to the

claim that speakers may converge towards their interlocutors in a bidialectal or bilingual situation chiefly in order to promote communicative efficiency.

Shockey (1984) investigated adjustments made by four speakers of American English resident in England. She looked specifically at their production of flapped /t/ and /d/ in phonological environments such as 'latter' and 'ladder', where a distinction would be made in British English. She points out that these sounds would be fully articulated in American English only when the speaker was aiming for maximum distinctiveness, such as in correcting a misunderstanding or spelling a word aloud.

Shockey found a tendency among her subjects to suppress the flapping of /t/ in a relatively slow phrase or where it had high information content. On the other hand, both sounds, but particularly /d/, showed a strong tendency to flap in fast, unstressed, highly-redundant speech. She accounts for these phonological adjustments in terms of the pressure of intelligibility, pointing out that a large proportion of her own intelligibility problems as an American resident of England have been caused by the flapping of /t/, whereas flapped /d/ causes no problem. She explains the fact that her subjects showed no signs of modifying their pronunciation of postvocalic /r/ in the same way: this sound does not cause comprehension problems for British-English interlocutors, and consequently there is no pressure to suppress it .

A weakness of this study for our purposes is the fact that the American researcher was herself the interlocutor in the interviews with the four subjects. The accommodation that occurs therefore cannot necessarily be attributed to a desire to converge with the interlocutor (although she herself also tended to suppress flapped /t/), but rather with the British-English speaking population at large (though see Bell 1984 on accommodation to reference groups). Nevertheless, the emphasis that the study places on suppression of phonological transfer in order to promote communicative efficiency is directly relevant to the findings of the studies reported in Chapter Seven.

Takahashi (1989) investigated speech adjustments in the context of ILT. Her subjects were six Japanese learners of English, three of high-intermediate level and three of advanced level, all of whom were interviewed in English by a high and low proficiency Japanese and a high and low proficiency Spanish speaker of English. The conversations were analysed with respect to four quantitative variables: the length of speech and fluency, the amount of talk, the number of questions, and the use of meaning negotiation. However, she recommends that future research should investigate qualitative changes to L2 speaker's speech in areas such as pronunciation and syntactic complexity.

In analysing her data, Takahashi found the interlocutor to be an important factor in influencing the NNS's speech at both the linguistic and psychological level. Of particular interest to the present research is her finding that the advanced speakers converged statistically significantly towards the proficiency level of their interviewers by increasing the amount of speech with their high proficiency interviewer and decreasing it with their low proficiency interviewer. On the other hand, the intermediate speakers spoke more than their low proficiency interlocutors, but less than their high proficiency interlocutors. Thus it appears that convergence occurred on this variable where it was within the competence of the L2 speaker to adjust her speech in the direction of her interviewer's. However, where this was not the case, convergence did not occur.

Takahashi's finding with regard to her lower level subjects relates to the second issue, that of the speaker's repertoire. For while L2 speakers engaged in NS/NNS conversation or in ILT are likely to have the motivation to adjust their speech in the direction of that of their interlocutors in order to facilitate communication, they may not have the knowledge or ability to do so. See, for example, Platt and Webber's (1984) discussion of attempts at convergence between expatriates and speakers of Singapore English (from Chinese, Indian and Malay backgrounds) which misfire. Two of the main causes of the unsuccessful outcome are the latters' transfer of intonation patterns and consonant cluster reduction. Indeed, pronunciation seems to provide a particularly strong barrier to successful convergence involving NNSs. This is chiefly because "in addition to the social psychological factors that affect all language performance, L2 speech is always subject to L1 interference" (Beebe and Giles 1984:18) and, as was discussed at length in earlier chapters, such "interference" is reflected most extensively at the phonological level.

We can expect problems of phonological convergence to be compounded in ILT. Here, speakers may not only have competence limitations regarding the target language, but also repertoire problems in relation to their different-L1 interlocutors. The NNS speakers involved in this problematic talk (see Chapters One and Four) are highly likely to have the desire to adjust their speech in order to promote greater intelligibility for their NNS interlocutors. However, they are unlikely to have the repertoire to be able to match their partners' pronunciations, because of the L1-specific nature of the latters' interlanguages. Thus, as Beebe and Giles point out, "It is important, when extending social psychological theories to SLA data, that limitations in repertoire be considered. For it is the tension between limitations in *ability* to converge and *motivation* to converge that makes second-language data unique.... With native speakers and fluent bilinguals, we assume that

the ability to converge is there. With second-language learners, the capability may not be there" (1984:23, emphasis in original).

Beebe and Giles long ago described the potential for accommodation theory for "breaking away from its essentially social psychological mold and emerging more centrally and into the interdisciplinary arena" (1984:9). In the following chapter, ILT is investigated within the accommodation framework, but largely outside its original social-psychological parameters. In examining the ILT data, we should therefore be prepared to discover something other than a traditional manifestation of convergence.

Chapter Seven

Evidence of phonological convergence in ILT: two studies

In the previous chapter, we examined a number of studies conducted within the accommodation framework. Many of these studies remain within the original social-psychological remit of SAT and concern NS-NS or NS-NNS dyads. However, we observed that some researchers including Giles, the originator of SAT, have called for the extension of accommodation theory beyond the bounds of social psychology, thus enabling it to embrace not only affective, but also cognitive motivations and, in particular, the desire to adjust one's speech in order to be understood. It was argued that while affective motivations such as group identity are unlikely to play a prominent role in the type of ILT which is the subject of the present research (though they cannot be discounted altogether: see 7.1.4), the communicational efficiency motivation is likely to be highly salient, and that the updated accommodation framework therefore provides an excellent one within which to investigate IL variation in ILT.

The two studies presented in this chapter approach IL variation in ILT from an accommodative perspective by looking for phonological convergence involving forms affected by transfer from speakers' first languages. However, because the subjects are not the NSs or fluent bilinguals of much CAT research, 'traditionally' manifested convergence in which subjects adjust their pronunciation in the direction of that of their interlocutor, is not necessarily predicted to occur. The reasons for this are threefold. First, there is a repertoire problem (cf. 6.3.2). Speakers from different L1s frequently fall wide of target pronunciations in different ways. They are not necessarily able to produce the various target language substitutions and approximations of their different-L1 interlocutors either at all or with the degree of facility and automaticity required in oral interaction. Second, although in multilingual (though not monolingual) classes students by definition receive exposure to other IL accents and over time become accustomed to them, such IL pronunciations are rarely the subject (for reception) and never the goal (for

production) of teaching. Third, there appears to be a fairly strong psychological fear of and resistance to the acquisition of peer group pronunciation errors.

The main study, a longitudinal study, identifies phonological convergence, contrasts the effects of such convergence in different L1 dyads (DLDs) and in same L1 dyads (SLDs), and observes how this changes over time and between tasks. The second study, a replication and extension of the first, investigates more fully the effects of two different task types on phonological convergence in DLDs. In both studies, a combination of methods of data collection are used, and the data analysed both qualitatively and quantitatively. In the final section of the chapter, the findings of the two studies are pulled together and conclusions drawn about the nature of phonological variation in ILT, leading directly to the pedagogical implications and recommendations of the following chapter.

7.1 Main Study

In the collection of data for this study, attempts were made to meet four conditions. First, the data had to be of sufficiently good quality in terms of audibility and clarity for small phonemic and phonetic differences to be picked up. Experience had shown repeatedly that this was less likely to be the case if subjects were left alone and in control of the recording equipment. Second, since in ILT research by definition both speakers in a dyad are subjects and their joint output is the focus of the research, it follows that the data should be as naturalistic as possible, with control being kept to a minimum, and the researcher/teacher not involved in the interaction. Third, because communicational efficiency was hypothesized as the most likely motivation for convergence in whatever form it occurred, it was essential to include tasks in which interlocutor comprehension would be highly salient to the subjects. Fourth, since the data were being collected among EFL students at a language school, the lengthy process of data collection had to provide some benefit to the subjects themselves, which paradoxically implies some sort of teacher involvement.

The optimum situation was considered to be one in which the collection of the data could be incorporated into classroom routine in such a way as to fulfil the other three conditions. A solution to the problem was offered in the form of the preparation of students for the Certificate in Advanced English (CAE) examination, which was introduced by the University of Cambridge Local Examinations

Syndicate in 1991. One of the main aims of this examination is to make examining more communicative in order to reflect current classroom practice and to provide a positive backwash effect on teaching. For the present research, the interest was in the oral examination, or 'interview' (Paper 5), the greater part of which is conducted between two candidates rather than between an examiner and candidate(s). The upper-intermediate/low advanced level of students being prepared for this examination was also ideal for the purposes of the research, since it was desirable for subjects to exhibit variation in the transfer of L1 sounds rather than to have acquired the target sounds fully, or to lack the competence to produce them at all, or at best with extreme cognitive effort.

By tape recording CAE interview practice sessions, it was thus possible for the researcher to meet all four conditions. The task-based nature of the examination guaranteed the salience of interlocutor comprehension, particularly in those tasks involving information exchange (see below). Practice examinations could be timetabled and recorded by the researcher (who was also the subjects' teacher) during school hours. The researcher was able to set the interview up, give instructions and control the recording equipment, but take no further part other than to make notes for subsequent feedback to the students. Further, because this was practice for a speaking examination, students expected it to take place in a separate room, away from the classroom itself. This removed the risk of reducing the audibility and clarity of the target data through background classroom noise, and yet since such 'private' oral examination practice is a frequent and expected activity for students in examination classes, it did not introduce into the proceedings an artificial element which might otherwise have affected the subjects' behaviour.

While teachers do not necessarily record such examination practice, doing so is of undoubted benefit to students, and was on these occasions clearly recognised as such, since the students were able to listen afterwards to the recording together with their interlocutor and teacher, in order to identify and clear up any linguistic or communicative problems. The listening stage of course provided the researcher with additional data as the subjects could be encouraged to self-reflect on their performance, explain the motivations underlying their linguistic behaviour, and clarify what they had meant or thought their partner had meant where this was unclear. Finally, although the subjects were asked for their permission for the recordings to be used for research, with the promise that the purpose of the research would be revealed to them at a later date, the CAE framework meant that there was little chance of subjects' guessing this purpose for themselves and subsequently

adjusting their speech. Indeed, their own aim of practising for the examination very quickly took precedence over any concern with the research, so that by the end of the data collection period they had to be reminded that the recordings had served a dual purpose.

Although the recording of CAE interview practice was thought to provide near-ideal conditions for collecting the type of ILT data required, two potential and related problems were identified. These will be discussed briefly before we move on to the methodology. The first concerns the Observer's Paradox (Labov 1972) and the second, the use of an examination situation in data collection. As regards the former, the danger was not only that the fact of being observed might cause the subjects to adjust their speech in the direction of greater formality (and in our case, therefore, of greater correctness), but also that the presence of a NS might affect precisely the phenomenon under investigation, namely that of convergence. In order to counteract subjects' reactions to being observed in ILT and, in particular, to being recorded, steps were taken prior to the first recording to acclimatise them to this situation by recording them frequently in normal classroom activities. To minimise the risk of subjects' converging on the speech of the NS researcher/teacher, she spoke only in order to provide brief instructions before each task commenced. In fact, the speech recorded in the one instance when the NS was not present (the 'Pre-interview chat' in Interview Three) yielded results very similar to the comparable phase of the other interviews except in terms of the generally lower quality of the recordings.

As regards the problem of collecting data in an examination environment, two points can be made. First, although the stress of an examination situation may affect students' output and, according to Nickel, "transfers will increase even in the case of very advanced students", with hypercorrection also featuring prominently (1989:298), these were not examinations proper where the students were being assessed, but developmental practices leading to useful feedback with a teacher familiar to them. Where they occurred, both phonological transfer and hypercorrection were thus likely to have been motivated for reasons other than examination nerves, a claim which is supported by the subjects' responses to a question on the issue of nerves in the questionnaire (see Appendix E), only one of the subjects (Japanese) admitting to having felt a little nervous. However, the Japanese subjects did tend to say relatively little and to speak slowly and carefully, to an even greater extent than was typical of their everyday style of speech in the classroom (see 8.2). Second, because of the demanding nature of some of the

tasks, the subjects' concentration was likely to be focused on these rather than on their pronunciation, so that any attempts to reduce L1 transfer were more likely to be related to their desire to carry out the task successfully with their partner than to speak with correct pronunciation *per se*.

7.1.1 Methodology

The first study involved the six students studying for the CAE examination at the researcher's London EFL school (such low class numbers being an unfortunate fact of life in recession-time EFL schools in this country). Of these students, two were Japanese (Masae and Yumiko), three Swiss-German (Philippe, Reto and Stefan) and one Swiss-French, (Stephanie) though trilingual in French, German and Italian (the use of real names was agreed with the students). All six were in their twenties, with Masae the youngest at 21 and Stefan the oldest at 27. Philippe, Reto and Stefan were male and Masae, Stephanie and Yumiko female. Five were graduates of universities in their own countries, while Masae was midway through her first degree and would return to Japan to complete it after taking the CAE examination. Philippe, Reto and Stefan were bankers, Yumiko worked in an information company and Stephanie in an insurance company. All six subjects had taken a placement test before entering the CAE class (two weeks prior to the first recording) and were considered to have reached levels of proficiency in English somewhere in the upper-intermediate to low-advanced range.

Because the first study adheres closely to the format of the CAE oral examination, a brief account of the latter will be useful at this point. The CAE interview always involves two candidates unless the examination centre is entering an odd number of students, in which case there will be one group of three. There are also two examiners, one acting as an interlocutor at points where the candidates need instructions, and the other as an assessor who only speaks, if at all, in the very final stage of the examination. Candidates are assessed on five criteria, each on a 1-8 point scale: fluency, accuracy and range, pronunciation, task achievement, and interactive communication.

The interview itself consists of four distinct stages. In Phase A, the candidates are asked whether they know one another well. If they do, they are asked to describe one another briefly for the examiners. If they do not, they are instructed to ask questions to find out about one another's homes, families, countries, interests, future plans and so on. Phase B consists of two information gap exercises. One candidate speaks for approximately a minute, while the other listens and performs a

task such as drawing what is described, identifying similarities and differences in a picture that is similar to their partner's, or recognising which picture of several similar pictures has been described by their partner. The listener is permitted to ask questions to clarify and confirm, but is encouraged to wait until the speaker has had a long turn before doing so. Roles are then reversed so that the listener becomes the speaker and vice versa. Phase C is a problem solving task in which, with the help of prompts, the two candidates collaborate and negotiate to reach agreement or to agree to disagree, for example on which of a group of inventions has had the greatest impact on our lives, or which topics should and should not be taught in secondary schools. In Phase D there is a general discussion involving one and sometimes both examiners, in which the theme of Phase C is developed. The whole examination is expected to last fifteen minutes, with three to four minutes being allocated to each phase, although in practice, the majority of examiners tend to overrun by at least five minutes.

In the recorded practices, because the purpose was both to collect useful data for the research and to enable the six students to develop and prepare gradually for their examination, the CAE examination structure was not rigidly adhered to. In particular, the limits on the timing of the first three phases were not observed, and in Phase B the listener was free to ask clarification questions whenever necessary rather than having to wait until the end of the speaker's turn (though these points were tightened up in a final unrecorded 'rehearsal' for the real examination). A further difference from the examination proper was the fact that in the practices there was only one 'examiner' present, i.e. the researcher/teacher who, for the purposes of the research (i.e. to maintain the ILT focus and, as described above, prevent subjects' converging on her speech), kept participation to an absolute minimum. The students were instructed beforehand to ignore her unless she addressed them (which was generally the case only in the giving of instructions at the start of Phases A, B and C, and in Phase D).

As regards the transcripts (see Appendix C), although all four phases of the interview were always tape recorded for the students' benefit, Phase D was not relevant to the research, since it involved discussion between the examiner and candidates rather than ILT, and has therefore not been transcribed.¹ Phase A is only of interest where the students asked each other questions (ILT), but not where they

¹ Although it did in fact produce an interesting finding which could be followed up in future research, namely that students appeared to increase their L1 transfer when speaking to the 'examiner'. See also Faerch and Kasper 1987:125 on the limits to how much learners are willing to converge to the speech of a teacher.

described each other (NNS-NS interaction). From the third interview they knew each other sufficiently well to do the latter and, accordingly, Phase A is not transcribed for the later practice interviews. However, as a prelude to the third interview, the students were left alone for three or four minutes and asked to record themselves talking informally as they would normally do before the start of class. The resulting 'Pre-interview chats' are included in the transcripts where they were sufficiently audible and clear.

The six students were paired in the only possible way to form three DLDs (different-L1 dyads), i.e. two pairs consisting of a Japanese female and a Swiss-German male, and one pair consisting of a Swiss-French female and a Swiss-German male. This was not ideal for two reasons: first, it would have been preferable to have pairings that did not involve both a different L1 and a different sex; second, it was not possible to obtain baseline data for the third pair (for this study, though not for Study Two, 'baseline' refers to data obtained from SLDs, or same-L1 dyads). In addition, the fact that Stephanie was fluent in her partner's L1 was likely to confound the data gathered from their interactions (although this appeared not to be the case for her partner, Reto, whose phonological variation patterns closely followed those of the subjects in the other two dyads - see 7.1.2 below). Problems of this nature, together with that of small data bases, are largely unavoidable where research is conducted in a classroom context: the researcher has little choice but to use the resources available. However, in the case of the present research, where the emphasis is on the qualitative analysis of naturalistic ILT, with quantitative analyses being provided to support the qualitative findings, it can be argued that such problems are of minor relevance since rigid controls of the sort mandatory in experimental research are largely inappropriate.

The three DLDs were each recorded on four separate occasions, i.e. 4 x 3 DLDs, at fortnightly intervals, each interview lasting approximately 25 minutes in total. The subjects in the two Japanese/Swiss-German dyads were then rearranged into 2 SLDs, i.e. Japanese/Japanese and Swiss-German/Swiss-German, and recorded for a fifth time, to provide baseline data. In all there were thus a total of 14 recordings each providing samples of speech from two subjects, i.e. a total of 28 subject samples, together with extensive notes taken during the interviews to provide written support for the taped material. Each taped interview was listened to by the two subjects concerned together with the researcher, and the subjects' comments noted down where of interest. At the end of the recording period, the subjects were asked to fill in a questionnaire (see Appendix E).

The recordings were subsequently transcribed, listened to again and the transcriptions annotated with every occurrence of phonological error and examined for evidence of phonological convergence. While convergence on one another's phonological transfer errors was not predicted as the most likely manifestation of accommodation,² some sort of phonological convergence motivated by communicational efficiency was anticipated. In the Pilot Study reported in 1.1, it had been found that the majority of NNSs understand most easily the English of speakers from their own L1 background and find it most difficult to understand the English of speakers from unrelated first language backgrounds, with pronunciation (and thus L1 phonological transfer) most frequently cited as the major source of the problem. Convergence in ILT is therefore likely to bear resemblances to foreigner talk, which is itself a form of convergence (see 6.2.2). One of the main motivations for FT speech adjustments is the NS's desire to be understood by his NNS interlocutor. Because he has difficulty in understanding the latter, again with pronunciation being a major factor, the NS assumes the difficulty to be mutual and begins speaking more slowly, articulating more clearly and so on. In ILT a similar, though two-way process is likely, the main difference being that the adjustments operate on an IL rather than a first language.

Thus, because of the comprehension problems that phonological transfer causes participants in ILT, it was predicted that convergence would take the form of suppression of such transfer, with interlocutors converging not on one another's pronunciation, but on the target language which, in turn would lead to variation between correct and incorrect (i.e. transferred) forms, depending on the salience to the speaker of interlocutor comprehension at any particular time. However, it was not clear how this would work in practice. Would suppression affect all of a speaker's habitually-transferred forms or only certain forms thought for some reason to be 'high risk'? Would it affect only those target forms that an interlocutor also produced wrongly (but differently) or only those forms that an interlocutor produced correctly, i.e. in the manner of the target language (thus suggesting the possibility of convergence on the interlocutor's correct pronunciations)? Were different combinations of these alternatives possible, perhaps depending on the state of play at any one point in the interaction, and involving factors such as the availability of contextual cues and the linguistic environment of a potentially transferred item?

² In fact convergence on one another's transfer errors did occur occasionally, particularly in the later interviews, see 7.1.3.

Because an eyeball test and its auditory equivalent suggested that L1 phonological transfer in the SLDs was in excess of that in the DLDs, at least for the Swiss-German subjects, the DLD/SLD data (therefore excluding the Swiss-French/Swiss-German pairing) were examined qualitatively, to see whether they supported the prediction of convergence by means of L1 transfer suppression for communicational efficiency. Specific phonological variables were then selected for quantitative analysis, and a chi-square test carried out on these variables in order to provide support for the qualitative analysis of the DLD/SLD data. Because close examination of the DLD data had revealed interesting differences in the amount and type of transfer between the first two phases of the interview, a post hoc analysis of these two task types was then carried out, with qualitative analysis again preceding quantitative. Finally, the data were examined for links between variation in phonological transfer and miscommunication, variation in phonological transfer, phonological environment, and contextual cues, and the effects of time on phonological variation.

7.1.2 Results and discussion

In order to contrast the differences between L1 transfer in DLDs and SLDs, we will examine two extracts of each of the four speakers engaged respectively in DLD and SLD interaction. The interlocutor's speech is omitted, but its occurrence is indicated by the latter's initial in square brackets. All segmental phonological errors (i.e. not only the variables selected for later statistical analysis) are shown immediately below the word in which they occur, using mainly broad transcript, but also narrow transcript where relevant.³ Where the term 'L1 transfer' is used in the discussion it refers, as before, to the wider interpretation of the term given in Chapters Two and Three, thus including interaction with phonological universals and developmental factors. Unless otherwise indicated, the extracts are phonologically typical of the larger texts from which they are drawn.

EXTRACT 1

Stefan: Interview two (DLD)⁴

Okay, it's a it's a four storey house with two large balconies_v and one small balcon_g,
this the small balcon is on top-is the highest one [Y] Balcon [Y] I think it's the
d

³ In order to preserve visual clarity, the phonemic and phonetic symbols are not placed within respectively slanting and square brackets.

⁴ All the extracts are taken from Phase B of the interviews. See Appendix C for transcript conventions and full transcript of Study One.

right word. And in front of the house are is a is a yes it's a road, and on this road is
 a a lorry. And and in front of the house too there are is a parking a small parking
 space with let's say one, two, three, four, five, six, seven, eight parked cars and
 most of the cars are covered with snow. And on the left side of the house there are
 there are four or five parked cars. Four are co-five are covered with snow and one
 is is, a red a red car is not covered with snow. In the back of the hou-of the house
 you can see, on the right side of the back of the house is you can see a mountain
 with er covered with with trees and snow of course. And there are a f-few houses
 behind this main house I described to you.

EXTRACT 2

Stefan: Interview five (SLD)

All I can see is one square, it's xx xx first with with two dia-dia-diagonals I guess,
 this is the word, and now in every every corner of your square is er, is another er,
 the square is xx, yeah, a small square in every corners of your big square is a small
 one, and the length is about two, two-and-a-half, no three centimetres ... [P] Yeah
 xx So you have four small squares in the big square. Then you have the er a square
 with the same size in the middle where the two diagonals diagonals crosses each
 other, you have another square. [P] Same size as the other xx xx [P] Yes, you have
 then [P] parallel to the the length of the big square ... Okay, then you have, if you
 have drawn this er small one in the middle er the four corners of this small square
 er hit the diagonals. [P] Then from there you draw a line to the middle of the white,
 the length of the big square, so it gives you er [P] Four [P] Yeah, like arrows ...
 They all have the same size ... should have the same size.

These two extracts demonstrate fairly clearly the differential quantities of
 phonological error in the DLD and SLD conditions respectively. This is all the more
 striking when we consider that the DLD data were collected six weeks (and in the

case of two of the extracts, eight weeks) ahead of the SLD data.⁵ If no other factors had been involved, we would have expected phonological error to be more evident in the former than the latter, since phonological competence was likely to have improved to some extent during the period of language learning. Moreover, when we examine Extract 1, the DLD extract, more closely we find that the majority of errors concern non-essential, grammatical words such as 'and', 'with' and 'the', rather than important lexical items. In addition, 'with' is always pronounced with a final /v/, which is acoustically far closer to NS /ð/ than is /d/ (cf. pp.64-65),⁶ and thus the word is easier to interpret. The three exceptions are 'balconies'/'balcon', 'road' and 'covered' (four times). The L1 influence in the first can be explained by the fact that the word is a cognate. The word 'road' is immediately repeated correctly. Pronunciation of the third word, however, appears to cause the speaker some difficulty. Each time he repeats it, he gets a little closer to the correct sound, going from two relatively serious errors (consonant substitution and long/short vowel confusion), which his partner did not understand (she later said that she had guessed the meaning from the picture), to one minor error (the wrong short vowel). Interestingly, while the spelling continues to influence his pronunciation until the fourth attempt, the subject removes his transfer error, i.e. the substitution of /v/ with /w/ at the second. All this suggests strongly that he is attempting to suppress those errors that are likely to cause his partner comprehension problems, and thus that he has identified certain 'high risk' categories.

Moving on to the second extract, the errors are not only more frequent, but they also involve many more content words which are crucial to the passage, such as 'square', 'diagonals', 'length' and 'centimetres'. In the feedback session after the fifth interview, the two Swiss-German subjects agreed that their pronunciation had seemed to be more accurate when they were paired with their Japanese partners, but pointed out that they had found one another very easy to understand, indeed far easier than they had found the Japanese subjects.

The next two extracts, those of the other Swiss-German subject, follow a similar pattern and again will be discussed in detail at the end of the passages.

⁵ It was not possible to collect SLD data at an earlier stage, since this would have been difficult to justify to the students, who had been put into pairs to train together for the CAE examination on the understanding that their performance was likely to be better in DLDs. On the other hand, it would not be appropriate to use later DLD data for the comparison, as increased competence rather than convergence may account for some of the reduction in transfer, while prolonged exposure to one another's pronunciation may also have affected the subjects' output.

⁶ The speaker, who was living with an English family, may also have been influenced by the local (SE London) pronunciation of /ð/ as /v/.

EXTRACT 3

Philippe: Interview one (DLD)

Well, my picture shows a a living room, it's not a very big one. Erm I see three windows_s and there are er two chairs_s, one big one and a small one ... And, no I don't know it's called where you can, I think it's a, where can I make fire, you know what I mean? And er on the right hand side_t I see a cu-a small cupboard_t with books and plates in there. There are some pictures_s the wall ... and erm sm-small table and also another sm-very small wooden chair [M] Chair. Small one. There are two more or less big ones_s in the middle of the room on the left hand side close to the window is a small wooden one. And there's another cupboard on the right hand corner of this room and erm that's xx.

EXTRACT 4

Philippe: Interview five (SLD)

Well, the picture shows a man he's about in his thirties_s, er in this picture he's very excited because I think he's er he's reporting a horse race or something like that, okay, I describe him now. Erm he's he's got er o-oval face, he's wearing glasses ... he's got er [S] oval ... and er he's wearing glasses and er he's wearing a hat, his hat's it's quite difficult to describe it well but it's not a beret, but it's similar to it ... and er he's got er long, for a man qu-er rather long hair which er come down to his whiskers [S] His whiskers are er also consist of very long hair and er ... his arms are the same level as his head is because he's very exciting and he-he's very excited and his hands er are are showing the excitement with a wave, I think he's waving or something like that ... His hands are both above his his head

Although the pattern is similar to that of the first Swiss-German subject, it is not immediately as clear cut. Several of the transfer errors in Extract 3 (DLD) involve the sound /ʒ/ in non-important words. Like the previous subject, Philippe substitutes this phoneme with /v/ rather than /d/ in word-final position, and with /d/ word-initially, though generally as the full-blown phonemic substitution, rather

than the closer approximation of [d] used by Stefan in Extract 1. This can be explained partly by the fact that his Japanese partner also used this substitution (although rather less frequently than Philippe), so that he was not likely to regard it as constituting an identification problem for her. Also worth considering is the fact that this interview took place a fortnight before Stefan's (Extract 1). Both subjects were found to improve their pronunciation of this sound over the whole ten-week period.⁷ Indeed, even by his second interview, Philippe had reduced the substitution of initial /ʃ/ with /d/ and was often producing the form correctly or substituted by [d]. As was discussed earlier, the subject's ability to produce sounds, i.e. his repertoire, must be taken into consideration when looking for convergence. In Extract 3, he also makes errors on five important lexical items (if we discount the second 'cupboard' as containing a relatively low risk error). However, of these, two involve the devoicing of the word-final plural /z/, which is unlikely to lead to identification problems (a point that could also be made with regard to Stefan's pronunciation of the word 'balconies'), which leaves only 'side' 'small' and 'cupboard' (first time) as high risk errors.

On the other hand, when we turn to SLD Extract 4, we find many more pronunciation errors including several content words with errors other than the pronunciation of plural /z/, and three words each containing two errors ('something', 'whiskers' and 'hands'). Although Philippe seems to repeat the word 'whiskers' correctly in response to an interruption by his interlocutor, suggesting that he recognised that his mispronunciation had caused a problem, in fact the reverse may be true. Stefan later admitted to not knowing the word at all. Philippe's L1 version of it may therefore have been an unconscious attempt to pre-empt a difficulty with an uncommon word. Indeed, the only error in this extract that causes an identification problem for Stefan is the substitution of /v/ with /w/ in 'oval'.

We now move on to the two Japanese subjects. This time the two sets of extracts will be discussed together. This is partly to avoid repetition, there being a number of similarities between the two, but also because they contain far fewer phonological errors in either DLD or SLD than those of the Swiss-German subjects.

⁷ Although pronunciation improvements were not always apparent in group situations (see discussion of ILT groups in 8.1).

EXTRACT 5

Yumiko: Interview two (DLD)

There is ah three sofas and one is one for three for four persons and other and the
 rest are for one person. And two cushions on the longer xx and one cushion is on
 the right hand side of the sofa and ... and about the (middle) orange xx is on the
 table [S] Ah, between mm between the sofa for one people-for one person, and
 also ahm newspapers on the table, square or rectangle (I don't know) and the table
 is made of wood and glass. Mm ... mm and ah a fruit basket on the cup-cupboard
 and in the fruit basket I can see pine-pineapple and, grape ... fruit? No, grape and
 maybe peach, and er there are three pictures on the wall. Mm on the picture I can
 see mm I don't know the name but all are of flowers. Mm ...

EXTRACT 6

Yumiko: Interview five (SLD)

I can see a man with his mouth widely open and also his eyes are wide um circle.
 And mm he o-he opens his eyes wide wide widely and he is wearing glasses ... and
 he is wearing hat and he has got whiskers, like, um whiskers xx xx beard beard
 beard here, whiskers on the cheek. [M] Mm his hands are, he he ... is rise-raise-he
 is rising his hands. [M] Ah, both, over over his head ... and he is wearing rings on
 every every fingers ... He is wearing neck-er tie [M] This one ... and ... [M] ... eh
 ... it's not round but square, I think it's like drop, ah raindrop. [M] It's like kind of
 hat [M] Hat (hunting, hunter) xx xx [M] Yes ... And um ... no, no no, not beard,
 whiskers, [M] Whiskers on the cheek like like hairs ... Ah also he is wearing
 watches on both wrist ... Um, I can see two strings from-hanging from glasses.
 [M] Until the side of head, what, I don't know what it is xx to hold glasses. If,
 when you take off glasses xx.

EXTRACT 7

Masae: Interview one (DLD)

Mm ... there is one yacht and one couple, boyfriend girlfriend I think, I don't know if they're boyfriend girlfriend, and the other picture um there are a lot of yachts [P] Yacht ... boat ... I don't know the name exactly ... um like ship [P] Wind wind [P] which are put in order [P] near seaside ... mm do you have any question? [P] Just the couple. [P] Yes, some chairs. Two people are [P]

EXTRACT 8

Masae: Interview five (SLD)

Mm inside the square there is ah circle which touches each line. um four (line) ... in outside four line ... and ... in the middle of the circle and square there is small square, but the corner, corners ah touches the cross xx square. And, how can I say that ... just the smaller square than the big one.. [Y] The square which is between the paper ... xx and mm ... in the big-biggest square there is, you can see the cross, ah no no, not cross, mm ... and uh write the straight line in the middle [Y] The middle draw ah ... ah, well, you can see the cross in the line, and, okay, triangle, just triang-four triangles (big-big one), four triangles ... and please divide the triangle into two.

As was pointed out earlier, these four extracts contain noticeably fewer errors than those of the Swiss-German subjects. This is not the result of higher phonological competence on the part of the two Japanese subjects. Rather it reflects cultural differences in that they tend to say less, pause more frequently and for longer periods, speak more slowly and probably think more carefully before they do so (cf. Takahashi 1989). In the SLD situation, this tendency is exaggerated: the Japanese subjects each say less in total than they generally do in the DLD interviews (this is most noticeable in Phase C of interviews three and four as compared with Phase C of the SLD), speak still more slowly and pause more frequently and for longer. Convergence is thus revealed more in these extra-linguistic areas than

phonologically (i.e. in L1 transfer errors),⁸ and reflects the subjects' prior educational conditioning, in which making mistakes involved losing face and was to be avoided if possible.

Because the Japanese subjects monitor their output so rigorously, they considerably reduce the risk of automatic phonological transfer slipping through in the way that it does with their Swiss-German interlocutors,⁹ despite the latter's evident attempts to suppress it in the DLDs. Nevertheless, there are some phonological differences between the DLD and SLD data for the two Japanese subjects, for not only are there rather more phonological transfer errors in the SLD than in the DLD extract in each case, but there are also differences in the type of error made and the way the speaker reacts to them. In Yumiko's DLD passage, two of the errors are phonetic rather than phonemic. Although phonetic errors cause NNSs more problems than they do NSs (see p.75), they are in many cases likely to be less serious for NNS comprehensibility than phonemic errors such as the substitution of /r/ with /l/. This is true of Yumiko's approximation of /f/ with [ϕ] in the word 'fruit'.¹⁰ On the other hand, her pronunciation of 'cushion' contains one of the phonetic errors identified in 4.1 as a potential problem for comprehensibility, i.e. the elision of word-final /n/ accompanied by nasalisation of the preceding vowel. However, she repeats this word correctly a few seconds later.

Yumiko's most serious DLD error in terms of the priorities established in 4.1 above is the substitution of /l/ with /r/ in 'flowers'. The /r/-/l/ confusion is relatively rare in Yumiko's speech generally. In this case, the error may be the result of overcompensation. According to my Japanese informants, the single Japanese sound that is somewhere between /r/ and /l/ is in fact closer to /l/. Japanese speakers

⁸ According to Takahashi (1989), embarrassment is also involved. The Japanese subjects in her study are reported as having felt uncomfortable speaking English with a partner of the same L1. In the present study, the Swiss-German subjects in fact reveal the same type of extra-linguistic convergence in their tendency to speak more quickly and interrupt more frequently in their SLD pairing (see Appendix C). It is also possible that the accommodative situation of complementarity (cf. Giles et al. 1991:33-34) obtains in DLDs one and two, particularly in Phase C, with the Japanese females perceiving themselves to have a subordinate role in relation to their male western counterparts, and therefore saying considerably less than them and, where permissible, leaving them to take the lead in the interaction. The situation seems to have changed by Interview three, presumably because the Japanese subjects have become attuned to and begun to adapt to the ethos of learner equality in the multilingual EFL classroom, regardless of nationality, age or sex.

⁹ This can occur when a learner has not yet gained automatic control of the lexical and/or grammatical items he is using. His attention may be fully occupied by the attempt to locate and produce appropriate items, so that he is unable to attend simultaneously to phonological form. Having produced an item with automatic L1 phonological transfer, he may then repeat it with the correct pronunciation in situations where this is necessary for interlocutor comprehension and where comprehension is itself particularly salient (as in DLD information exchange tasks: see the main text for examples of this phenomenon).

¹⁰ See p.63 on the differential effects on intelligibility of the substitution of /f/ and /h/ with [ϕ].

of English therefore find this sound easier to produce than /r/, and early on tend to substitute /r/ with /l/ rather more often than vice versa. However, as they increase in proficiency, they become very conscious of the fact that they produce /r/ incorrectly, and for a time err in the opposite direction, substituting /r/ for /l/, until they finally begin to distribute the two phonemes correctly. Yumiko has almost reached this final stage, whereas Masae is only just beginning the transition from the first to the second stage, as is evident from the mistakes she makes with both phonemes.¹¹

By comparison with her DLD errors, all Yumiko's errors in her SLD extract are phonemic, and three times she repeats the same error ('beard', 'whiskers' and 'over') without any apparent attempt to correct it. Masae makes a phonemic error in her DLD, substituting /ɑ:/ for /ɜ:/ in 'girlfriend', but as with Yumiko's mispronunciation of 'cushion', she too repeats the word correctly within seconds. On the other hand, when Masae makes the same phonemic error in her SLD (in 'circle'), she does not attempt to correct it. Nor does she correct the potentially very serious substitution of /l/ with /r/ in 'line'. Masae's substitution in DLD Extract 7 of /s/ for /ʃ/ in the word 'ship' (which she mistakenly pronounces with a long /i:/ phoneme) is likely to be the result of overcompensation, since Japanese speakers of English frequently substitute /ʃ/ for /s/ before /i:/.

The overall picture is thus one of speakers making considerable efforts to suppress L1 phonological transfer when they are interacting in English with a speaker from another L1 as compared with a speaker from their own L1. To support this conclusion, a chi-square test was carried out on specific sounds in the DLD and SLD data, to find out whether the difference in frequency of transfer to non-transfer in the SLD condition as compared with that in the DLD condition was greater than would have occurred by chance. The selection was based not only on which sounds are known to be most persistently subject to phonological transfer in each of the two L1s, but also on notes from classroom observation of the subjects. For the Japanese subjects, the variables selected were the mispronunciation of /r/, the substitution of both /ɜ:/ and word-final schwa with /ɑ:/, and the omission of word final /n/ with nasalisation of the preceding vowel. For the Swiss-German subjects, the selected variables were word-final consonant devoicing and the substitution of /dʒ/ with /tʃ/.

¹¹ In fact, some of Masae's errors with both /r/ and /l/ are phonetic rather than phonemic: she sometimes produces a flap [ɾ] that sounds closer to /r/ than to /l/. She also occasionally produces the developmental error /w/ for /r/, that is the same 'error' made by many NS children acquiring their L1.

For the quantitative analysis, Phases B and C of the interviews were used (there being no Phase A in the SLD interview). For each subject and each selected variable, the number of tokens with and without L1 transfer were counted in all four DLD interviews and the single SLD interview. Any uncertain items (i.e. where it was not completely clear whether transfer had or had not occurred, or where items were already included in parentheses) were ignored. Because the number of DLD tokens showing L1 transfer was low, particularly for the Japanese subjects, it was decided to pool the tokens from the four DLD interviews. The findings were as follows:

Table 3 Transfer and non-transfer in same and different-L1 dyads

Subject		DLD1	DLD2	DLD3	DLD4	DLD total	SLD
S	LT	13	17	18	29	77	26
	NLT	35	51	64	104	254	38
Y	LT	7	8	14	1	30	7
	NLT	23	32	35	27	117	15
M	LT	2	5	7	4	18	10
	NLT	7	22	24	26	79	16
P	LT	11	6	12	8	37	32
	NLT	27	42	50	34	153	44

LT = L1 transfer / NLT = no L1 transfer

Chi-square tests carried out on the figures in the final two columns for each subject yielded the following results:

Subject	chi-square	df	p
Stefan	7.51	1	<0.01
Yumiko	0.86	1	ns
Masae	3.56	1	<0.1
Philippe	13.32	1	<0.001

This can be seen as confirming the qualitative findings that the Swiss-German subjects are attempting to suppress phonological transfer when engaged in interaction with their different L1 partners. However, while following a similar trend, the Japanese results are less satisfactory. Masae's result is only significant at the 0.1 level, while Y's result is completely off the chi-square table. The cause is

undoubtedly the low number of tokens obtained in the SLD as a result of the subjects' reluctance to speak. However, as pointed out in note 3, it would have been inappropriate to collect SLD data on other occasions during the examination preparation period in order to bolster the number of tokens.

Despite the lack of significant results for the Japanese data, there does seem to be a clear tendency for subjects to suppress L1 transfer in order to make their speech more comprehensible to their different L1 interlocutor. This is demonstrated by both the qualitative (linguistic and extralinguistic) and quantitative findings. However, from the follow-up interviews and questionnaire responses, it emerged that other factors had been involved in the SLDs besides the lack of need to suppress transfer in order to promote communicational efficiency. These factors raise the possibility that the subjects were not using their normal vernacular ILs, and thereby suggest that while providing us with useful information on DLD/SLD differences, the SLDs do not constitute the best possible baseline data. The extralinguistic information has already hinted at this possibility, for in terms of speech rate and quantity, and number and length of pauses (though these were not measured statistically), the subjects appear to converge on the speech of their same L1 partners. There is thus a strong likelihood that they do the same with their pronunciation, and are producing rather more transferred forms than they would do in their baseline IL.

Such convergence has three possible sources: the salience of group identity, embarrassment, and comprehension. In the case of the first, the presence of the same L1 interlocutor is likely to reinforce the speakers' L1 identities leading to phonological convergence, which may take the form initially of subjective convergence and only gradually as the interaction advances of objective convergence (see p.117). Embarrassment was cited most strongly by the Japanese subjects (cf. Takahashi 1989), although all four found it unnatural to use English as a *lingua franca* when there was no authentic need for it. Such embarrassment seems to affect certain stereotypical sounds more than others (cf. Zuengler 1989b). For example, for some English speakers of French, there is often resistance to the production of uvular /r/, uvular sounds tending to be stigmatised in the L1. As regards comprehension, all four subjects, but particularly the Swiss-Germans, said that they found it easier to understand their SLD partner's pronunciation. Thus, not

only was there no reason to suppress L1 transfer, but there was good reason to increase it.¹²

Because it was thought that the data yielded by the social interaction task in Phase A of the DLD interviews might provide a more accurate basis for comparison, it was decided to look more closely at differences in L1 transfer between Phase A and Phase B. While it was not expected to find as much transfer in Phase A as there was in the SLD interactions, it was already evident from the annotated transcripts that the process of suppression previously identified in Phase B was not taking place as regularly in this earlier phase of the interview. Again, phonologically annotated extracts from each dyad will be examined before the quantitative analysis is presented. For the two Japanese/Swiss-German dyads the reader is referred to the Phase B extracts above for comparison with the Phase A extracts which follow below. Because the baseline no longer involves SLD pairs, the Swiss-French/Swiss-German pairing can be included in the analysis (though with the reservation mentioned earlier, that the Swiss-French subject was fluent in German, her partner's L1, as well as in French and Italian). Their Phase A and Phase B extracts are presented together below.

EXTRACT 9

Stefan and Yumiko: Interview two, Phase A

Y: Do you play football?
 φtəbəl

S: Yes I played in a team back in Switzerland.
 *

Y: Are you a member of a football team?
 a:

S: Yes.

Y: (Then, and) what kind of film do you watch-do you see?
 ts

S: Er, it's (/kw/) it's it's a mixture. I like er adventure films and, er fiction. (I want
 to tell you) about fiction, for example, I I watched er 'Alien 3 [three]', 'Lethal
 * * * * *
 Weapon 3 [three]' and xx. You can't compare these films, it's
 * * * * *
 dis *

Y: Do you do you have some any particular favourite actor or actress?

¹² Other EFL students have pointed out that there is an optimal level of such convergence beyond which they in fact find it more difficult to understand the English of their L1 group. There is also another kind of embarrassment which may be caused by a speaker from one's own L1 overstepping the mark with L1 transfer, which could be called the 'Ted Heath factor' after the ex-Prime Minister's attempts to produce French speech.

S: Ah, yes, I would say my favourite actor is Harrison Ford and my favourite actress is Jamie Lee Curtis.

At a first glance there seem to be rather more transfer errors for both subjects in the Interview two Phase B extracts shown earlier. Stefan's Phase B contains 181 words (excluding uncertainties in parentheses and fillers) of which 21 are affected by transfer error, a ratio of approximately 1:9, while in Phase A above, he produces 68 words of which 9 contain errors, a ratio of between 1:7 and 1:8, thus implying only a marginal difference from Phase B. However, on closer examination the situation is somewhat different, and provides a good example of how relying on quantitative analysis alone can distort the picture. In this instance, the results partly derive from the fact that this particular piece of Phase A text only presents Stefan with thirteen other opportunities (indicated by *) to transfer sounds of the type he exhibits here, whereas in Extract 1 he has many more opportunities to do so. Indeed, Stefan's transfer errors are more prolific in other parts of the Phase A conversations (including several substitutions of /dʒ/ with /tʃ/). In addition, four of the errors in Extract 1 involve the mispronunciation of a single word ('covered'), while six are substitutions of /v/ for /ð/ in the word 'with'.

On the other hand, Yumiko's case provides a more straightforward contrast between the two Phases. In Phase A she produces errors in 4 out of 36 words, or an error ratio of 1:9, as compared with only 6 words out of 129 in her Phase B extract, or an error ratio of approximately 1:21. Further, all four of her Phase A errors are phonemic and of the kind identified in 4.1 as potential threats to intelligibility, whereas one of her Phase B errors is a 'harmless' phonetic one, [ɸ] for /f/, and a second is the substitution of /θ/ with /s/, an error regularly made by her interlocutor also, and therefore not a threat to intelligibility. Again, qualitative examination of the data provides insights that would be missed by quantitative analysis alone.

EXTRACT 10(a)

Masae and Philippe: Interview one, Phase A

M: What do you do in your country?

P: Erm, I work for a bank, for a big bank, Union Bank of Switzerland (you might have heard about it).

M: And where is your company?

P: I work in er Zurich ... it's a big town in the middle of Switzerland ...
k t

M: Ah Yeah, I know it.

-P: but I live in Lucerne - it's about one hour away from Zurich.
f

M: And what are you interested in, nowadays?

P: I'm interested in er mainly sports, a lot of sports, I play a football club.
p

M: Mm.

-P: and I often play tennis, squash and in winter of course I go skiing.
skv

M: And do you play foot ball in England?
f t b l

P: Erm sometimes, but not very often because er the grounds aren't very good here.
t s t

EXTRACT 10(b)

Masae and Philippe: Interview two, Phase A

P: What sort of shop?

M: Antique jewellery.
i

P: Oh (that's nice)

M: My graduation thesis is about antique jewellery
z i

P: Ah

M: So I can use the knowledge for the job.
v

P: It's interesting. What are your hobbies?

M: Hobbies? Ah my hobbies are watching sport and
v

P: Just watching?

M: Just watching, dancing and classic ballet mm reading and watching plays in a
i
 small theatre.

Again, these extracts reveal a sharper contrast between Phases A and B for the Japanese subject than for the Swiss-German subject. In Extract 10(a) the latter's phonological error rate is approximately 1:8 (there being a total of 79 words), which contrasts with his rate of 1:12 in Extract 3 (DLD Phase B), where 11 words of a total of 133 contained errors. On the other hand, while Masae produces errors in 7 out of 36 words in Extract 10(b) or between 1:5 and 1:6, her rate in Extract 7 (DLD Phase B) is only 2 errors in 60 words.

An interesting observation as regards these two extracts is the fact that both subjects make the majority of their errors when they are answering rather than asking questions, and this is typical of the Phase A interactions for all subjects.¹³ It also fits in neatly with the general contrast that is being noted between phonological transfer in Phases A and B. In the discussion of the Phase B extracts above, I suggested that because of the salience of interlocutor comprehension, speakers directed much cognitive effort to phonological form and, in particular, to the suppression of L1 transfer, which they saw as detrimental to their partner's understanding and thus to the achievement of the task. Where lapses occurred, these indeed tended to lead to comprehension problems (see below for further discussion of this point).

In Phase A, on the other hand, cognitive effort appears not to be so uniformly directed towards phonological form, leading to rather more variation in the suppression of L1 transfer. This is presumably because comprehension is less salient: there is no task to achieve that depends on the successful exchange of information. Moreover, the subjects are far freer to ask one another for repetition and clarification than in the more formally-structured Phase B. In addition, much of Phase A involves subjects talking about themselves, an activity which is likely to divert attention away from form and onto content.

As regards questions, however, greater attention to phonological form can be predicted on two counts. First, interlocutor comprehension is more salient, since an answer is the required outcome, and this would not be possible if the question were not understood. Indeed, it could provide embarrassment and subsequent loss of face for either the speaker or the hearer, as compared with other moves in the interaction, where non-comprehension could be ignored by the hearer if preferred. Second, the questioner has time to plan, and therefore to give attention to both content and form. On the other hand, the respondent is expected to reply more-or-less immediately, so that thinking and speaking are almost simultaneous. Without planning time, he thus faces a situation of processing overload and, unable to attend to both content and form at once, is likely to give precedence to content. Thus, target language sounds will be produced in the form that is most immediately accessible and automatic: those that have been fully acquired will always be correct

¹³ Yumiko (see Extract 9) is a possible exception to this. She tends to give very short answers, so that even in the section of Phase A of Interviews one and two where she is supposed to answer Stefan's questions, he still speaks considerably more than she does.

(in terms of lacking L1 transfer), while those that have not been fully acquired will be liable to fall back on long-established L1 habits and be subject to transfer.¹⁴

The latter four subjects reveal the same general trend (i.e. greater transfer suppression in the information exchange task than in the social interaction task) in their Pre-Interview chats before Interview three. This is notwithstanding some reduction in transfer errors as part of a general improvement in competence over the two week period between the two recordings, comparable to that between Interviews one and two. However, the quality of the recordings is inferior to that of the other interviews and, indeed, so poor for the Swiss-French/Swiss-German dyad as to prevent transcription. They are therefore not included in the analysis.

We now move on to examine samples of ILT of these last two subjects, Reto (Swiss-German) and Stephanie (Swiss-French), to see if the pattern is repeated.

EXTRACT 11

Reto and Stephanie: Interview two, Phase A

S: Erm, so where do you come from?

R: I come from Switzerland.
t

S: Which part?

R: Er central Switzerland.
z t

S: Uh huh.

R: I live in a quite a small village near Lucerne and er on the lake of Lucerne
f w tj

S: Uh huh.

-R: as well, a very nice area.
w

S: Yes, it is.

R: Erm, I have a beautiful view to the Alps.
f

S: Uh huh.

R: And yeah, I like it there very much.

S: That's lucky.

R: And where do you come from?
p

S: Erm, I come from Bienne, it's in the middle of the French and German part (so
i: i:

¹⁴ According to Faerch and Kasper, automatic transfer "typically occurs when there is a *competition* between an L1 and an IL subplan, and where the L1 plan 'wins' as it is more highly automated" (1987:128; emphasis in original); see also Norrish 1983 on automaticity.

we have) xx

R: Bilingual?

S: It's a bilingual city, yes and I live near the lake in the centre (so it's) very useful, erm, I work for an insurance company, so I I use-used to speak French, German, also Italian and erm ... that's it.

R: Yeah, okay, my work is er, I'm a banker, I'm working for UBS in Zurich at the stock exchange, er I'm changing my er departments quite frequently because I'm a trainee and I have to see every kind of trading, for example share trading or bond trading or warrants and so on. That means that I change the departments every half a year, and now I'm - this stage here is erm to learn my English.

EXTRACT 12

Stephanie: Interview two, Phase B

Okay. There is a chalet erm ... in ... erm and around this chalet you have a lot of cars. Erm the chalet's white, you have three balcony erm and behind the chalet you can see a mountain, two mountain ... erm, you have three or four people in front of the chalet erm ... you have, ah, on the right of the the chalet you have a hotel [R] and ... behind the chalet you have another one, another chalet. a little one erm ...

EXTRACT 13

Reto: Interview two, Phase B

Okay, my picture shows a living room er ... at the front wall there are hanging - hanging er three pictures and the picture er show plants or kind of plants, I don't know (how) they're called exactly, and er, there is a a cupboard also at the wall [S] and on this cupboard er is situated er a basket of with er with fr-fruits in it and also plants. And then in the, in the right hand corner there is a small table with a lamp on it, [S] er electric lamp and in the left hand corner there is er a little er bigger bigger table [S] than the other one and on this one is a, is a vase with flowers in it and two how do you say, two er, booklets or something like this.

These extracts provide clear evidence that Reto's phonological transfer follows the pattern established for the four subjects discussed above. In the Phase A extract, his ratio of incorrectly to correctly pronounced words is approximately 1:6 (125 words, 21 with errors), while in Phase B it is 1:14 (122 words, 9 with errors). Moreover, his Phase A errors involve the serious core error of consonant substitution (cf. 4.1) in several important nouns, for example, 'central', 'village', 'view', 'exchange', and 'stage'. On the other hand, over half of his Phase B errors relate to the less serious (i.e. non-core) error of vowel substitution within rather than across the long and short vowel groups, i.e. /ɔ/ for /ʌ/ and /ɔ:/ for /ʌ:/, while only one, 'pictures', concerns an important noun, and here the error affects the plural morpheme rather than in the base word itself. This is all the more interesting when one considers that Reto's interlocutor was fluent in German. It thus appears that speakers engaged in ILT may perceive a need to suppress L1 transfer even where the interlocutor is a fluent bilingual in their first language, though obviously more research is required here.

Because she makes so few errors in Phase A relative to her total number of words, Stephanie's results are less conclusive (her Phase A ratio of incorrect to correct words being approximately 1:12 and her Phase B ratio approximately 1:14). This probably relates to points made before, viz. that she is trilingual, fluent in her partner's L1, and phonologically proficient. She makes few errors involving transfer from her French L1, other than the confusion of /ɪ/ and /i:/, the rare substitution of /θ/ with /s/ and /ð/ with /d/, and a tendency towards syllable timing. Nevertheless, her more serious (i.e. core) phonemic errors are restricted to Phase A. Intriguingly, she very occasionally also makes errors that appear to derive from German phonological processes, such as the word-terminal devoicing of /d/ in 'and' in Extract 12 above. Although such errors involve pronunciations used by her interlocutor, it is not clear whether she is converging on his speech or is simply affected by her previous learning of his first language. However, the occurrence of these rare errors only in Phase B, together with the fact that she actually increases her substitution of /θ/ with /s/ and /ð/ with /d/ in this phase (these substitutions being made rather more frequently made by her interlocutor) suggests the former explanation.

We now move on to the statistical analysis of the Phase A/Phase B comparison. The same variables as before are used for the Japanese and Swiss-German subjects involved in the DLD/SLD comparison, and also for the third Swiss-German subject. For the Swiss-French subject, the only variable used is confusion of /ɪ/

and /i:/, as she does not make any other error in sufficient quantity to warrant counting.

Table 4 Frequency of transfer and non-transfer in two task types (1)

Subject	Interview one				Interview two			
	Phase A		Phase B		Phase A		Phase B	
	LT	NLT	LT	NLT	LT	NLT	LT	NLT
Stefan	18	15	4	17	18	21	7	30
Yumiko	5	3	7	21	4	18	7	28
Masae	2	14	1	6	3	13	2	10
Philippe	13	13	7	22	8	16	2	26
Reto	18	7	5	14	15	11	10	28
Stephanie	7	19	2	18	2	6	-	9

LT = L1 transfer / NLT = no L1 transfer

In order to provide a sufficient number of tokens, the Interview one and Interview two figures were pooled (see Table 4), and chi-square tests carried out on the totals (for example, for Stefan the figures are: LT 36, NLT 36 in Phase A, LT 11, NLT 47 in Phase B). The results of the tests were as follows:

Subject	chi-square	df	p
Stefan	12.09	1	<0.001
Yumiko	2.43	1	ns
Masae	not calculated		
Philippe	7.82	1	<0.01
Reto	15.03	1	<0.001
Stephanie	2.91	1	<0.1

Once again, the results are significant for Stefan and Philippe, as well as for Reto. However they are only significant at the 0.1 level for Stephanie, while the chi-square figure for Yumiko is predictably off the chi-square table, and that for Masae cannot be calculated because one of the expected frequencies is way below the 5 necessary for this test. Thus, of the six, three subjects' results are significant, one marginally and two not at all. Nevertheless, the previous qualitative discussion revealed ways in which both the Japanese and the Swiss-French subjects were

indeed adjusting their pronunciation for communicational efficiency in Phase B, as contrasted with Phase A. Furthermore, the highly significant statistical results relate to the three subjects who spoke the most, particularly in Phase A, where speech was relatively optional. They therefore offer strong support for the qualitative findings.¹⁵ The main problem thus appears to be the low quantity of speech for three of the subjects, compounded by the higher pronunciation proficiency of one of these three (Stephanie) and the excessive self-monitoring in Phase A of the other two (Masae and Yumiko). The non-significant results may, then, be in part a function of the fact that this study was originally designed not to compare task types, but DLD and SLD interaction. Clearly, larger samples of speech are required for all subjects as well as, ideally, samples from all-male and all-female dyads. Because this line of enquiry was promising, the Replication continued the investigation of convergence for interlocutor comprehension in the two task conditions, but with these and other methodological improvements.

Before we turn to the Replication, some further findings of this study will be discussed and intermediate conclusions drawn. These concern two main areas: first, the relationship between phonological transfer and miscommunication that emerged from the data and second, the changes in convergence that occurred over time.

7.1.3 *Phonological transfer and miscommunication in ILT*

In order to reach conclusions about phonological transfer and miscommunication, including the roles of phonological environment for the speaker and linguistic and extra-linguistic contextual information for the listener, we will look closely at the examples of miscommunication in Interviews one to four for which we have very clear background information from the subjects themselves, or which were obvious at the time of data collection.

Table 5 Causes and outcomes of miscommunication in the data

1. (1B) Yumiko:	"mantelpiece" (Stefan does not know this word)
2. (1B) Stefan:	oven pronounced /əʃfən/ then /əʃvən/; wrong word - he means 'fireplace' (Yumiko does not understand at all)
3. (1B) Stefan:	wood pronounced /wɒt/ (Yumiko hears "water")
4. (1B) Yumiko:	"vase" (Stefan does not know this word)
5. (1A) Stephanie:	"What is your work?" spoken very fast. (Reto does not understand until repeated more slowly)
6. (1B) Stephanie:	toys as /taɪz/ (Reto does not understand until repeated correctly)
7. (1B) Reto:	wool as /wɒl/ (Stephanie does not understand at all but says nothing)

¹⁵ As has been said before, the Japanese subjects in fact improve their level of participation in Phase A in Interviews three and four, but these do not comprise ILT data exclusively, since the subjects address the examiner as well as one another, and these data cannot therefore be included in the analysis.

8. (1A) Masae: football match as [fʊtəbəl mætʃ] (Philippe does not understand until repeated correctly)
9. (1A) Masae: soccer club as /səkə: klʌv/ (again Philippe does not understand until repeated correctly)
10. (1A) Philippe: hobbies as /həʊbɪs/ (Masae repeats as /həʊvɪz/ with rising intonation)
11. (1B) Masae: wood chair /w/ pronounced [ɹ]. (Philippe understand "chair" and ignores the word "wood")
12. (1C) Masae: "couch potato" (Philippe does not know the term - Masae explains)
13. (2A) Masae: "You want work in England?" as /wɔːnt/ (Philippe does not understand until Masae repeats the question correctly)
14. (2A) Masae: "after I return to Japan" as [dʒəpæn] (Philippe asks "after what?" - Masae repeats with same pronunciation but adds "from England" and Philippe understands)
15. (2B) Masae: "three red cars" as /led/ (Philippe does not understand and assumes she means "cars to let")
16. (2B) Philippe: "table is surrounded by chairs" as /tʃeəs/ (assumes Masae's problem is "surrounded" and rephrases, but in fact she is not sure whether he means "chairs" or "chess")
17. (2C) Masae: "it looks more sad, much sadder" as /sæt/ and /sætə/. (Philippe does not understand until Masae repeats correctly)
18. (2A) Stephanie: "You need English a lot?" quietly and with falling intonation. (Reto understands when repeated correctly)
19. (2B) Reto: "booklets" instead of "magazines" (Stephanie does not understand what he means)
20. (2B) Stephanie: "ashtray" (Reto knows the word but could not place it at that moment)
21. (2A) Yumiko: "flower arranging" (Stefan knows the words but not that the course is available in the school and assumes Yumiko has made a mistake)
22. (2B) Stefan: balcony as /bælkən/ (Yumiko does not understand)
23. (2B) Stefan: covered as /kəʊvəd/, /kəʊvət/, /kəʊvəd/ and /kəʊvəd/ (Yumiko eventually guesses from her picture and the word "snow")
24. (2B) Yumiko: cushions with final [ʃ] (Stefan does not understand until she repeats correctly)
25. (2B) Yumiko: scissors as /sɪzə:z/ (Stefan does not understand until she repeats correctly)
26. (2C) Stefan: "to use children as the cover is not the baddest idea" (Yumiko does not understand "baddest")
27. (3B) Reto: hat as /hæt/ (Stephanie only understands after one rephrasing and one still incorrect repetition of the word)
28. (3A) Yumiko: "Japanese animation films" with final syllable as [ʃɔ̃] (Stefan understands only Japanese films and does not pursue the word "animation")
29. (3A) Yumiko: Mall as /mɑ:l/ (Stefan does not understand)
30. (3B) Yumiko: "chest chest long" to describe hair length (Stefan understands when she rephrases as "up to her chest")
31. (3B) Yumiko: zipper as /dʒɪ:pə:/ (Stefan does not understand at all; nor do I)
32. (3A) Masae: "are they English?" as /ɛŋ grɪʃ/ (Philippe asks "Are?" but then grasps it before she repeats)
33. (3B) Philippe: hat as /hæt/ (Masae assumes he said "hot", infers 'warm clothes' and draws a sweater. She is not aware that he has mentioned a 'hat')
34. (3C) Masae: "I'd take the bird" as /bə:d/ (Philippe asks "You'd take?" and understands when she repeats correctly)
35. (4B) Yumiko: man as /mɑ:n/ twice (Stefan does not understand until she repeats it a third time correctly)
36. (4B) Stefan: substitutes the word "furniture" for 'kitchen units' (Yumiko does not understand)
37. (4B) Stefan: substitutes the word "plate" for kitchen surface" (again Yumiko does not understand)
38. (4C) Stefan: "The weather is even worse /vɜ:rs/ there than here" (Yumiko does not understand until Stefan repeats with correct pronunciation)
39. (4B) Masae: "grey house" as /gleɪ/ (Philippe looks for a 'clay house')
40. (4B) Masae: curtain as /kɑ:rtən/ (Philippe does not know at first, but guesses from the word 'blind', although he later claims not to have been very confident about his guess)

The above comprise all the examples of miscommunication that were either obvious or were admitted to by the six subjects during the follow up interviews. Although there may have been other instances of noncomprehension particularly by Yumiko, the most reticent of the six, there were unlikely to have been many, since we listened in detail to the tapes together, pausing frequently to check whether what had been meant was actually what had been inferred.

The most outstanding feature of the list is the high proportion of instances of miscommunication caused by pronunciation errors. Of the 40 samples, one is the result of speed of delivery, one of the lack of world knowledge, one of grammatical error (two if no.18 is included), 9 relate to lexis (either speaker's misuse or hearer's lack of knowledge), and 28 to pronunciation (indicated in bold), of which one is caused by faulty intonation and 27 by the transfer of L1 sounds. Thus, phonological transfer¹⁶ is responsible for more than twice the other causes added together. This finding is well supported by convictions expressed not only by the six subjects themselves, but by many other EFL students who have experience of ILT, albeit that it does not slot in neatly with current (mainly NS) preoccupations with prosody as the primary factor in NNS unintelligibility (cf. p.69 and Jenkins forthcoming).

These examples also provide evidence of the minor role of grammar errors in ILT miscommunication, for despite countless errors, only once did a problem occur (or twice if the grammatical 'error' in sample 18 is considered to have compounded the faulty intonation pattern). The fact that learners usually grasp what is intended when their ILT peers make errors in grammar is probably a result of the developmental factor in the acquisition of L2 grammars. Although learners from different L1s acquire their L2 English grammar at different rates, taking differential periods of time to pass through developmental stages according to their L1 grammar (see p.25), they nevertheless pass through very similar stages.

Other points of interest relating to Table 5 concern the relationship between error and phonemic environment on the one hand, and error and contextual cues on the other. These relationships help to account for the otherwise puzzling existence of

¹⁶ Although the phonemic and phonetic errors detailed above predominantly involve categories of the common core (see pp.62-63), there are exceptions to this, where non-comprehension results from vowel substitutions not involving length, for example, the substitutions in 'hat' and 'curtain'. The substitution of /æɪ/ for /ɔɪ/ in the word 'toys', on the other hand, involves confusion between two of the three diphthongs that Jenner (1995) considers necessary for intelligibility (see p.60 above).

'high risk' common core phonological transfers in Phase B of the four interviews, the phase where speakers are making particularly strong attempts to converge on one another's pronunciation by means of suppressing such transfer, in order to promote communicational efficiency. However, such attempts involve much cognitive effort at a time when speakers are also having to direct attention to the complex demands of the task itself.

One possible explanation for these errors is, therefore, that when deciding how much effort to invest in suppressing phonological transfer, speakers weigh up (whether consciously or subconsciously) the risks involved for their interlocutors. If clear contextual (particularly extra-linguistic) cues, are available, speakers may decide that it is safe to relax their controls on pronunciation. Thus, transfer will only be suppressed if doing so is automatic, i.e. the target sound has been acquired. This may also tie in with the issue of phonological environment. Some L2 processes and sound combinations are more difficult than others for L2 speakers, depending on the interaction of the L1 phonology with phonological and physiological universals (see 3.2.1). Where such 'difficult' processes and sounds are involved, and in the presence of contextual information, speakers are still less likely to make the cognitive effort required to suppress transfer. A tentative example of this is sample number 39, Japanese substitution of /r/ with /l/ after /g/. The combination /gl/ (also other plosives plus /l/) may be universally easier to articulate than /gr/.¹⁷ Japanese speakers frequently make this error (or, if not, flap or trill the /r/ or produce it as /w/) but less often substitute /gr/ for /gl/ (where such substitution does occur it may be the result of overcompensation: see above, pp.153-154). Moreover, several NSs including the writer and a number of radio commentators have been heard to make this same error. It is therefore likely that here, the well-documented Japanese difficulty with /r/ interacts with a universal preference for /gl/ over /gr/ and where, cues are available for the interlocutor, the speaker is less inclined to make the extra effort necessary to produce /gr/.

¹⁷ At present this is largely speculation; obviously further research is required. For the present, we will simply observe that /r/ tends to be a difficult sound for both L1 and L2 acquirers of English, and, according to Macken and Ferguson 1981, clusters with /r/ particularly difficult. The latter account for such phonological universals as deriving from "universal properties of human articulatory and perceptual systems" (op.cit:4). Interestingly, despite phonotactic constraints on their use, NSs can articulate the combinations /tl/ and /dl/ (with dark [ɾ]) more easily than they can /tr/ and /dr/, which they usually pronounce /tɾ/ and /dɾ/. Other examples in the data where phonological environment seems to have a role are the more frequent substitution of /dʒ/ with /tʃ/ word-initially than word-medially or word-finally, by both the main study Swiss-German and the replication German subjects, and the tendency for the main study Swiss-German subjects to substitute /ð/ with /d/ word-initially, but /v/ word-finally (see James and Leather 1987:238-39 for an account of Dutch L1 speakers' acquisition of /ð/ and the different substitutions used in different phonological environments, and Sato's 1985 investigation of the effects of environment on Vietnamese subjects' production of consonant clusters).

However, it appears that contextual cues are more salient to L2 speakers than to hearers, who tend to lack confidence in their ability to utilise such cues, particularly where these are linguistic (see 1.2). In several of the samples of miscommunication in Table 5 (nos.15, 22, 24, 35, 39), clear extra-linguistic cues were available to the hearer in the form of pictures. Nevertheless, the hearers were unable to understand until the pronunciation had been corrected. Moreover, in one case (no.37), the hearer said in the follow-up interview that he was aware of his partner's tendency to substitute /l/ for /r/ and had actually been listening for this error. Where contextual information is linguistic rather than extra-linguistic, hearers may have even less confidence. For example, in sample number 40, Philippe did not understand Masae's pronunciation of the word 'curtain' and guessed what she had meant to say from the word 'blind'; however he later pointed out that he had not been at all confident (his own word) of the accuracy of his guess. In number 23, Yumiko managed to guess what Stefan had meant by his wrong pronunciations of the word 'covered', because here the contextual cues were very strong: a picture of snow and repetition of the error four times each followed by the words "with snow". Nevertheless, she still admitted that it had taken her some time to work it out.

The problem remains as to why there are more 'high risk' phonological errors leading to miscommunication (including examples of two or three common core errors occurring within one word) in Phase B (18 such errors) than in Phase A (8 errors, or 9 if no.18 is included). For as we observed in the previous section of this chapter, the general pattern is for speakers to make many more of these error types in Phase A than in Phase B, where task achievement is dependent on a successful exchange of information. One explanation could be the ease with which a non-understood item can be ignored. In Phase A, subjects may choose not to admit that they have not understood their partners in the hope that they can 'get away with it', whereas in Phase B, there will be concern that non-understanding could jeopardise the successful achievement of the task. However, as has already been pointed out, there were unlikely to have been many instances of this phenomenon in Phase A.

The most likely answer, therefore, is that such errors, though prolific in Phase A, do not cause a great many comprehension problems there because of the nature of the topics discussed (the students being more or less free to select) and the relatively simple language used to clothe them. Viewed the other way round, it is precisely because of this relative simplicity of task and language that interlocutor comprehension is not of primary salience to speakers and controls on automatic phonological transfer are relaxed. On the other hand, in Phase B, interlocutor

comprehension is the most salient factor in the pursuit of task achievement, and since the latter would be seriously threatened by 'high risk' phonological transfer errors, speakers work hard to suppress these. Given the complexity of the Phase B tasks, what is arguably most striking is that we do not find more miscommunication resulting from phonological transfer error in this phase.

7.1.4 The effects of time on convergence in ILT

Here we need to consider both production and reception. Starting with production, students' pronunciation will almost inevitably improve along with other linguistic areas during a prolonged period of L2 instruction. Such phonological improvement implies a decrease in phonological transfer and a corresponding increase in the ability to produce target sounds automatically. Hence, in the CAE interviews, there was an overall small but steady drop in the number of transfer errors relative to correct forms over subsequent recordings (cf. Table 4, p.164 for the drop between Interviews one and two). This in itself would have facilitated an increase in mutual comprehensibility.

However, the situation is rather more complex since we have to take into account the additional effects of exposure to each other's ILs, and these are twofold. First, by the fourth interview, very little miscommunication indeed arose from phonological transfer errors: it occurred only four times¹⁸ as compared with seven in Interview three, ten in Interview two, and eight in Interview one. After eight weeks of studying together, the subjects found it relatively easy to understand each other's accents. This was confirmed by their responses to the questionnaire, in which they all claimed to find their partners easy to understand. It was also particularly noticeable in larger group activities where, despite a stronger tendency to transfer L1 sounds (see 7.3 below), very little miscommunication occurred later on. This represented a marked difference from group work at the beginning of the recording period, when miscommunication was rife.

Second, not only did exposure improve the subjects' receptive competence in ILT, but it also affected their production.¹⁹ As they became more familiar with their peers' L1 phonological transfer features, they slowly began to incorporate a few of these into their repertoires. Thus, in addition to the type of convergence we have been discussing up to now, i.e. the suppression of L1 transfer for communicational

¹⁸ Three involve Japanese substitutions, twice of /a:/ for /ɔ:/ and /ɜ:/ respectively, and once of /ʌ/ for /r/, and one involves Swiss-German substitution of /v/ for /w/.

¹⁹ Bell (1984:62) points out that people naturally converge more to each other in their speech on subsequent occasions.

efficiency, we also find occasional instances of convergence on one another's transfer errors in the later recordings (something that was noted in the trilingual subject's speech at an earlier stage: see Extract 12 and discussion). It tends to be the Japanese subjects who converge in this way with their Swiss-German partners, and only to affect relatively 'low risk' items such as the devoicing of final /d/ in 'and'²⁰ and the more frequent substitution of /ʒ/ with /d/ than had been their custom.

Because of changes that appeared to take effect in the classroom during the latter part of the recording period, it is possible that the convergence just described may have been caused by affective as well as, or even rather than, cognitive motivations. Whereas the students had earlier sat firmly in their L1 groups, later on they seemed to prefer the company of their DLD partner. In addition, Stefan became very defensive on Yumiko's behalf, for example speaking up for her rights not to participate in a political discussion if she did not want to. Their questionnaire responses (see Appendix E, p.252 for the questionnaire format) also indicated that the subjects had developed and wished to maintain a rapport with one another. They all described their attitude towards their partner as having changed positively over the period (question 9), claimed to identify closely with their partner during the interview (question 8), and showed a reluctance to blame their partner for any misunderstanding that occurred in the interviews (question 5). However, their ongoing concern to promote interlocutor comprehension also seems to be implied in their answers to question 10, in which all six cited cooperation with their partner as more important than speaking perfect English.

Anecdotal evidence suggests that when the affective motivation is very strong, NNSs may actually acquire aspects of the IL pronunciation of their different-L1 peers. Nevertheless, this seems to be a very rare phenomenon, one which I have only encountered once between students from unrelated L1s, despite having taught multilingual classes for many years. This one occasion involved a very close, long-term friendship between a Japanese and a Swiss-French student such that the acquisition by the Japanese student of aspects of her Swiss-French friend's pronunciation remained long after the latter student had returned home.

One of the subjects involved in the replication (7.2) expressed the view that in a multilingual class he is always worried that he will pick up other students' accents and that he is therefore always on guard against it. This sort of psychological

²⁰ Oddly, Masae's maverick production of the word 'sad' with terminal devoicing in Interview two (no.17 in Table 5) is not understood by her partner, despite this being a transfer error type of his own, and a possible early attempt at 'traditional' convergence on Masae's part.

resistance will, itself, militate against such accent acquisition, quite apart from the repertoire problems discussed above and in the previous chapter. As we have seen in the first study, even after a prolonged period of training together, the more receiver-centred eastern subjects (cf. Giles and Coupland 1991:64) acquired very few of their partners' IL features, and were likely to use them only when in the latter's company. On the other hand, they acquired these accents receptively so that they could participate in ILT where previously they had not been able to. Indeed, the only potential danger for the vast majority of students would be an ILT situation where they experienced only one other IL variety than their own and no NS varieties.

7.2 Replication of the main study

Because most of the issues involved here were also discussed at great length in the previous section of the chapter, and because the replication involves only one relatively straight-forward piece of data collection and analysis, this section is considerably shorter. The main aim of the replication was to iron out the problems that had been identified in the second stage of the main study, and repeat it with subjects from other L1s, in the hope that an even clearer picture would emerge to confirm and strengthen the previous finding, viz. that suppression of L1 transfer operates as a type of convergence to promote communicational efficiency in ILT, where the successful communication of information is highly salient.

7.2.1 Methodology

The replication involved eight students of EFL/EAP (English for Academic Purposes) from two classes of the English Language Teaching Centre at King's College London. Their age range was slightly wider than that of the main study, with one student in her late teens, four students in their mid-twenties, two in their late twenties and one in his early thirties. Their purpose for improving their English was also different. Whereas the purpose of the students in the previous study had been vocational, five of the replication students intended to progress immediately to the study of an academic subject in an English medium university in the U.K., two (the Korean and the German students) intended to return for such study at a later date, while only one (the Italian), whose original intention had been the same, had changed his mind and was to return home to a job.

A further difference was the degree of familiarity with their DLD partner in the recording. In the language school study, the students had been relatively familiar with each other from the first recording, since they studied in the same class for five hours a day over the whole period. Thus, by the time of the first recording, they had already been together for 50 hours in the classroom. By contrast, because of the nature of their English course, in which classes were frequently divided and students did much work off-site, the replication students had spent far less time together, two being almost complete strangers (the Portuguese and Japanese females). On the other hand, their levels were reasonably similar to those of the CAE students, ranging from upper-intermediate (the Japanese male, Taiwanese and Colombian students) to low-advanced (the Japanese female, German, Italian, Korean and Portuguese students). However, because these students tended to adopt a more mature approach to their studies and to one another, the content of their conversations sometimes creates the impression that they are of a higher level (though not necessarily in terms of pronunciation).

For the purposes of data collection, the eight students were divided into four DLDs as follows: German male/Italian male, Colombian male/Japanese male, Korean male/Taiwanese female, Japanese female/Portuguese female. Because of the relative ease with which these subjects could be identified, they will be referred to by initials only: German = S, Italian = F, Colombian = E, Japanese male = W, Korean = L, Taiwanese = J, Japanese female = K and Portuguese = C. Within the restrictions of student availability, care was taken to include both male/male and female/female pairings. The two Japanese subjects, one male and one female, this time placed in same sex dyads, were included for comparison with the Japanese female subjects of the previous study.

Moving on to the tasks, because the CAE tasks had been productive in the main study, it was decided to retain them for the replication. The Phase A task ('social interaction'), now known as 'Task one', provides the baseline data or, in other words a sample of speech considered to represent each subject's IL vernacular (cf. Tarone 1988:40-41). Since the subjects were not being prepared for an examination and each was to be recorded only once, no pedagogical aim was involved and it was therefore possible to make certain changes. First, while three phases of the interview were actually recorded, only the Phase A and Phase B tasks (the 'information exchange' task now being called 'Task two') were subsequently analysed. This was because the subjects tended to deviate from the task they had been asked to perform in Phase C, and to chat as they had done in the first phase.

Second, the Phase B tasks selected for the replication were considerably more difficult than those used in the main study to ensure, as far as possible, that the subjects would be involved in a long, detailed exchange of information in order to achieve them. Third, Phase A was freer than it had been before. The subjects' brief was to discuss anything they wanted to rather than to find out about one another's backgrounds. Inevitably, several of them focused on future plans. A fourth difference involved the time allowed for each task. While the strict limits of the CAE exam had not been rigidly adhered to in the main study, in an attempt to secure longer samples of speech, the replication subjects were told 'about five minutes' for each task, but in practice were left to talk until they came to a natural break. Instructions were provided at the beginning of each task, with the subjects being directed to address one another exclusively and the researcher seated away from them, so that any form of accommodation involving the latter could be discounted. One final difference between the two studies was the absence of the examination framework in the replication. Although the interviews in the main study had been practices rather than 'the real thing', and the subjects had not admitted to being nervous,²¹ it was nevertheless of interest to discover whether the main study findings would be repeated in the wider non-assessment situation.

The recordings were followed by questionnaires and informal individual interviews which this time did not involve the replaying of the recordings. The tapes were then transcribed, annotated phonetically as in the main study and the data examined from a qualitative perspective. Finally, variables were selected for each subject, and chi-square tests carried out to ascertain whether the qualitative differences noted between the two task types were statistically significant.

7.2.2 *Results and discussion*

As before, we will first compare sample extracts of the two task types for each subject. In order to avoid repetition of the main study, attention will be drawn only to features of these extracts that provide *additional* insights into the differential rates of L1 phonological transfer suppression between the two task types. For the greater part, the extracts speak for themselves in that the rate of transfer error in Task one is approximately twice that of Task two. As before, discussion will take place, where relevant, after each pair of tasks.

²¹ And despite Nickel's (1989) claim that transfer increases in examination situations (see p.141), little difference was noted when the subjects were recorded chatting during the 'examiner's' absence from the room at the beginning of the third interview. In addition, the more examination-style Phase B tasks consistently produced far less transfer than the freer Phase A task.

EXTRACT 14

S: Task one

It is a little bit strange because sometimes you think you are not an engineer there, you are more or less leader of a kindergarten because erm I'm er, I have to work with with with er workshops together and with the people in the shifts in the nightshifts and so on, and have to cope with their their problems as well as with with the technical problems so it's not just basic engineering it's sometimes more psychological handling of of of personal problems and so on, so maybe I told a little bit about this and and you got this feeling.

EXTRACT 15

S: Task two

I think it's erm it's the parents and three children and the grandma I guess. and erm, it's two small boys in the age of around five and the other one maybe nine or ten and a small baby in the arms of the mother. [F] I guess it's summertime because all they wear erm light clothes and you can see in the in the back of the photograph you can see there's some er flowers blooming so erm I guess it's it's summertime. And, maybe they just finish with having erm having lunch or having er some tea because there's one mug sitting on the table.

Obviously this subject's most frequent transfer error is the substitution of /ð/ with /z/. While it does not appear to cause any instances of miscommunication in this particular interaction, F cites it in the questionnaire (see p.254) as causing him difficulty in understanding (in question 8a, he underlines the word 'pronunciation and adds "lots of zed"). This suggests that we may have to qualify what was said in Chapter Four about disregarding substitutions of /θ/ and /ð/. It may be that if the substitution is very frequent and/or involves a sound acoustically very different from the target sound, it should be included in the common core.²² Although F said that he had not understood S all the time, the only errors that in fact involve overt non-understanding are his pronunciation of 'mug' with terminal devoicing and F's own mishearing of the words 'eldest' and 'elder'. S is in fact extremely careful to

²² Perhaps, significantly, although in the questionnaire S mentions F's pronunciation as the cause of his own misunderstandings, S does not cite F's substitution of these two sounds with /f/ or /t/ and /d/ as a particular problem.

suppress his /ð/ substitution during the trickier negotiation of the differences between the two pictures.

EXTRACT 16

F: Task one

I think that in the nearest future er first of all, erm during this summer I think I will spend two months working in er in Berlin, I don't know exactly in which position should I be, but I think that erm er around administrative, any administrative er position in a building site in in the west side of Berlin. [S] for information yeah because I think that erm well I will be paid for this for this job, but I don't know exactly if I will have er any kind of accommodation provided by the company or not, so I will ask you er exactly where-what I need and xx

EXTRACT 17

F: Task two

Let's start with th-erm the first one and I think it's the the easy one. I can see an angry, angry face, angry face. Er, someone that is quite er angry against something and er it looks a little bit er, in a tough position. Erm, geograph-not geographically, erm, geometrically you can see that the the shape of the mouth is like (middle circle), [S] and erm er, that's the first one. The second one is an happy face. [S] Okay? And erm erm, they are in the opposite er position, one opposing the other. The third one it's so-someone is sleeping. You can recognize with er, we can recognise it by erm er three zed

EXTRACT 18

E: Task one

What are you going to do at the end of this term? [W] What are you going to do after this course [W] after this course? [W] Will you, would you take another English course or you think that you finish here in-with this course? [W] In this school? [W] And, you're not sure. [W] Right. Yes, I am I I'm going to I am going

to do Master degree (as well) [W] It's begin er September. [W] Yeah, the end of
 September, but I have to wait for my my test in English, I hope it's, have to be
 better, I have to be well I hope er to achieve six point five in IELTS

EXTRACT 19

E: Task two

Okay, I have six faces. [W] I start with one, [W] man, is very hang-very angry,
 angry angry [W] with the mouth in the angry direction turned down. (One) face
 have er er [zeds] on the right hand, maybe er he's thinking, thinking, I don't know
 but. The other is er a man [W] Thinking, he have three [zeds] in the, in the right,
 on the right of the face. The other man is, have the have er eye, eyebrow? Eyebrow
 [W] Eyebrow nearly like, like er like suddenly or like afraid, you know?

Some of E's phonological errors are only slight, for example his approximations of /h/ and /b/ with [x] and [β], and he makes a relatively small number of each error. On the other hand, his range of phonological errors is wide and some are serious. He is therefore at times difficult to understand, as evidenced by W's problems in Task one and failure to solve E's Task two (mainly because of the multiple errors in 'zeds'). Despite this failure, E suppresses transfer to a very considerable extent in Task two.

EXTRACT 20

W: Task one

Yes, I'm I haven't not decided yet actually, but er I'm going to enrol another
 course, after this course mm I'm going to enrol post graduate course erm from
 this autumn. [E]

What do you mean ninety ninety seven? Is it xx [E] Ah, so you mean er four
 years later. [E] Ah, two years later.....

Ah, I'm now living here with my wife, and my parents is, ah my parents are
 living in Japan mm.

EXTRACT 21

W: Task two

Ah this picture is a very er, this picture very happy family and I think there are two par-er parents and three children and one er grandmother I think and, m-er mother is standing in the middle of the picture and she is holding a very small little baby, and beside her um two boys, two boys is standing er one left side and right side, and erm in f-front of mother there is er grandmother is sitting on the bench and um, on the left side, on the right s-right hand of the grandmother er (I think there is a) father and father is sitting on (the some er) very low erm wall,

W's data have proved the most difficult of all to analyse qualitatively and impossible to subject to statistical test. He speaks slowly and carefully in the way that the Japanese subjects did in the main study and, like them, says relatively little in the first task. However, it may be that he is speaking a kind of foreigner talk to facilitate E's understanding,²³ based on his own difficulty in understanding E's pronunciation, which he cites in the questionnaire. Although W makes a fairly wide range of transfer errors, none is particularly salient on the recordings, and there are very few examples of each type, with too many non-transferred forms in each case to warrant collecting. His performance on tape is therefore atypical of his everyday classroom performance, where he makes a number of pronunciation errors, such as the fairly frequent substitution of /l/ for /r/ and of /a:/ for /ɜ:/. Nevertheless, the extracts still reveal qualitative differences between the two task types, in that W follows the general trend and transfers fewer L1 features in the second task.

EXTRACT 22

J: Task One

In Extracts 22 and 23, where consonant elision is not replaced by nasalisation of the preceding vowel, the elided consonant is indicated by an asterisk *

Middle country, (and here, I I think) I've been, I born there for very long time,
I've never moved to the big city or the other place. Yes, but I've fin-I've
just finished the senior high school and come to Britain.....
London, when I first come here I don't-I didn't like London because first I don't

²³ His use of schwa paragoge (a feature that had largely disappeared from his everyday classroom pronunciation) three times in the Task two extract (in 'and', 'bench' and 'left') supports this hypothesis. See the discussion of schwa paragoge in 3.2.1 above, and in subject L's speech below.

like the food, yeah, it's quite terrible in here I think, xx you know in Taiwan xx
 [L] Then, also I don't like the weather. [L] But, now I'm used to. [L] What do,
 what do you think? [L] xx but I think in your country there are lots of sunshine.
 In your country (it's warm). [L] It's a different way.

EXTRACT 23

J: Task two

In my picture I think they're in a garden. The the house, be-er behind the house,
 they have the small garden. And there are one two three four five six, six people
 in the garden. And I think they they er have er one man and with his wife and his
 mother I think, and they've got er three children, two boy, one baby. And they are
 smiling, it seems quite happy and ... er, they're in the garden and xx xx I don't
 know what else I can say, but the woman, ah she hold a baby, and ... and, ah, the
 er old woman she sit in the chair in the left my left picture, left-hand, and the man
 xx sit on the right side. And the other people they are standing.

J's most frequent type of error in both extracts is consonant deletion. This error type is potentially highly damaging to intelligibility because it makes recovery of the original form extremely difficult (cf. Chapter Three on the notion of recoverability). J. seems to be aware of the problem, although at this stage in her acquisition of English, she is only able to control it by the exertion of great cognitive effort. This she clearly does in the Task two extract, where words such as 'children' (which frequently emerges as /tʃ re/ in her everyday classroom speech: see p.77 above) are pronounced without deletion.

On the other hand, L's insertion of schwa paragoge in the next two extracts follow the opposite pattern. Whereas L reduces his other transfer errors, particularly the substitution of /p/ for /f/, in the information exchange task, he actually increases his use of schwa paragoge, as well as adding /ɪ/ after /f/ and /dʒ/. Although L's current vernacular IL contains little schwa paragoge, as evidenced by its scarcity in Task one, he appears to regard it as an aid to intelligibility, and therefore uses it extensively in the second task, particularly for key items such as 'closed',

'astonished' and 'shortened'. Again, the notion of recoverability would support the claim that he uses this feature to increase his partner's comprehension.²⁴

Both L and J admitted in the follow-up interviews that there had been occasions when they had not understood one another, and that the cause had been pronunciation. Their mutual difficulty thus accounts for both J's reduction in consonant deletion and L's increase in schwa paragoge in Task two, in the same way that in NS/NNS interaction, an NS's difficulty in understanding accounts for the use of foreigner talk.

EXTRACT 24

L: Task one

In Extracts 24 and 25, where this subject employs schwa paragoge at the ends of words, this is indicated by [^]

Yes, the capital of the Korea is Seoul and now, right now I'm living in Seoul. But actually I was born in the southern part of Korea but, I studied in Seoul and after finish at the school and finishing my study I got a job at Seoul so-in Seoul, so I now live in Seoul.....

Ah, my family. Yeah. Actually, right now I'm living with my wife and my son, but ... the concept of family is very different I think here and in my country. In my country when I, when we say about family, uh we think that we have father, I have my father and my mother and my sisters and my brothers, all equally, and ... uh I have three sisters

EXTRACT 25

L: Task two

xx tell you the six faces (I've got). The first face I have is smiling face [J] Yeah. Actually he's very happy and his mouth is very big. [J] Yeah. And his eyes is mm, almost closed. Can you (imagine)? [J] Yes ... And the other one I have is er maybe feel, she is very astonished, she is surprised. [J] and so her eyes is very large, big big. And the other one is oh, now he's very unhappy, so his eyebrush, eyebrow

²⁴ In fact L is unaware that he actually adds a vowel sound to the final consonant sound. He considers that he is simply emphasising the consonant.

eyebrow is ... shortened, eyebrow is (closed)
 əʊ ɒ ʌ

Note: where L substitutes /p/ for /f/, it is generally a 'soft', unaspirated sound, and thus acoustically closer to /f/ than NS /p/ would be.

One further point that should be made about L's data is the difficulty of analysing it statistically. Like W above, he produces a fairly wide range of different types of phonological error, but not a large number of each type, or many that could be considered very serious errors according to the common core. Also like W, he speaks fairly slowly and carefully throughout the interaction, though far more so in Task two. Again this seems to be out of concern for his partner's understanding, as implied by the extensive use of schwa paragoge in Task two, and by the fact that the recorded sample of Task one does not reflect the amount of transfer in his classroom IL vernacular. While his chi-square result is statistically insignificant, therefore, the qualitative analysis is able to reveal the fact that L does indeed adjust his speech to promote communicational efficiency.

EXTRACT 26

C: Task one

I'm from Portugal, I was born in Coimbra, a city [K] yeah, a city in the middle of the country, is inland and is one of the oldest cities, erm students' cities in Europe. I think that my town has the second university in in Europe, if we say the first university is in Poland I think. This is my xx [K] No, I'm not speaking about reputation [K] This is about erm age [K] Is er one of the oldest universities in in Europe. I think is [K] is more than ten centuries, around around ten centuries.

EXTRACT 27

C: Task two

So in this picture I can see erm what I will define as a family. I th-erm there are a couple er elderly pi-erm an elderly person may be mother of one of them and three sh-erm children, er one one of them is a little baby and he is not started started, he has not started walking yet. And erm it seems to be in wi-in erm in summer [K] because all of them are wore-are wearing erm fresh clothes. And er they are outside house, I I can't identify this is (reservatory) or no, but seems to be outside house.

On the questionnaire, C and K both claimed to have problems understanding one another²⁵ and both identified pronunciation as the sole cause of their difficulty. The only error that actually causes an overt communication problem is C's pronunciation of the word 'religion' with substitution of /ʒ/ for /dʒ/. However, in interview it emerged that there had been a reluctance to admit to comprehension problems when the interlocutor was relatively unfamiliar.

Of interest is the fact that both subjects are prone to drop final /n/ and nasalise the previous vowel. Each one makes this transfer error several times in Task one, though only C does so in Task two, and then only twice. This suggests that in relative strangers, convergence takes the form of an attempt at the blanket suppression of L1 features, rather than an attempt to match the interlocutor's similar IL pronunciations. Possibly repeated exposure is necessary before interlocutors become aware of such similarities, though further research is needed to confirm this.

EXTRACT 28

K: Task one

I'm from Japan, I'm from Kyoto in Japan. Kyoto is a mm most an- I think is a very
 ancient city, ancient city and there are many temples or shrine, also, it's very tourist
 city ... um, as well as students there as well, as well, no sorry. [C]

Because my parents is Catholic, my parents are Catholic and I went to French Cath-
 I went to French Catholic s-school for fourteen years. [C] I learned it for two, for
 three years, but I forgot. [C] Uh, when I, when I was working I considered
 considered my future, and I wanted to, I wanted to change my job, so, I think to
 find a new job it's necessary to me to speak English or, or understand Eng-English.

EXTRACT 29

K: Task two

First face is smiling erm, it seems very happy, seems to be very happy. Another
 another face is surprising. [C] And another mm, something they are, ah face is
 worried about something. [C] Another face is angry. [C] So it's very very angry

²⁵ This pair were virtually unknown to one another.

[C] Another face is sleeping, sleeping peacefully. [C] Last one is er maybe he found, ah no, this face find erm (cheated), no, cheating, cheating, because, ah, thi-the face find find er idea of cheating, somebody wanted er to cheat, someone, cheat someone.

The variables were selected for statistical analysis on the basis of each subject's performance in Task one. They were as follows: for S, substitution of /θ/ and /ð/ with /s/ and /z/, and of /dʒ/ with /tʃ/, and terminal devoicing; for F, substitution of /θ/ with /t/ or /f/ and /ð/ with /d/, and elision of /h/; for E, the following substitutions: /ɪr/ for /ɜ:/, /dʒ/ for /j/, and /i:/ for /ɪ/, the terminal devoicing of /v/, and the approximations of [β] for /b/ and [ɣ] for /h/; for J, consonant cluster simplification and word-final consonant deletion not involving clusters, substitution of /θ/ with /s/ and /ð/ with /d/ or /z/; for L, substitution of /f/ with /p/, prevocalic /l/ with /r/, /θ/ with /s/ and /ð/ with /d/; for C, terminal devoicing of /z/, and substitution of /θ/ with /s/, /ð/ with /d/ and /dʒ/ with /ʃ/ or /tʃ/; and for K, elision of final /n/ with nasalisation of the preceding vowel, substitution of /ɜ:/ with /ɑ:/, /b/ with /v/ and /θ/ with /s/. For each of these variables, a count was made of the number of times it was and was not produced in each task respectively. The aggregate frequency counts for each subject are shown in Table 6.²⁶

Table 6 Frequency of transfer and non-transfer in two task types (2)

Subject	Task one		Task two	
	LT	NLT	LT	NLT
S	64	63	30	93
F	19	16	12	42
E	38	44	14	56
J	47	51	19	95
L	19	55	5	30
C	18	35	5	52
K	19	25	2	15

LT = L1 transfer / NLT = no L1 transfer

²⁶ Because W produced very large numbers of NLT tokens for all potential 'problem' sounds, they were not counted and subjected to statistical analysis.

The results are as follows:

Subject	Chi-square	df	<i>p</i>
S	16.92	1	<0.001
F	8.25	1	<0.01
E	10.5	1	<0.01
W	not calculated		
J	22.63	1	<0.001
L	1.19	1	ns
C	9.41	1	<0.01
K	4.06	1	<0.05

The results are thus significant for six of the eight subjects, although only at the 0.05 level for subject K. In these cases, the statistical analysis thus supports the qualitative evidence, by showing that the difference in the amount of transfer between the two task types was, for these six subjects, not due to chance. It therefore lends weight to the claim that the subjects were converging phonologically on their partners' speech, by means of suppressing transfer, in order to promote comprehension in information tasks where such comprehension was highly salient, by virtue of being essential to the successful completion of the tasks. Moreover, even in the case of the two statistically insignificant results, the qualitative evidence reveals a similar pattern of behaviour.

In order to avoid repetition, the conclusions to this study will be provided together with those to the main study in the following and final section of the chapter.

7.3 Summary and conclusions

One point which needs making at the outset is that with such low numbers of subjects in either study, it is not possible to generalise with any certainty. Nor can I claim to have identified a single unifying theory to account for all phonological variation in ILT, although it is not impossible that one exists (see Chapter Five). Having said that, a clear trend, viz. convergence by means of the suppression of L1 phonological transfer to promote communicational efficiency, has been established for all the subjects and confirmed statistically for most of them. Moreover, the same pattern has been found in various types of DLD: all male, all female, male-female, with a range of L1s and ages, and in both a language school and a university environment. Furthermore, while there are inevitably some instances of variation in the data that I have not been able to explain (and others, notably concerning intonation, that I have not attempted to explore) tentative links have nevertheless

been identified within the accommodation framework between phonological variation and both contextual cues and linguistic environment (see below).

The findings in the phonological data were also strongly confirmed by the subjects' responses to the questionnaires. In both studies, most subjects nominated pronunciation as the main or, indeed, the only cause of miscommunication/non-understanding. Several subjects claimed to alter their speech, particularly sounds, depending on the L1 of their interlocutor (questions 1 and 7 on both questionnaires) and/or to try to speak English in a more standard way than they did with NSs. Moreover, when the purpose of the research was eventually revealed to the replication subjects, they individually agreed that they did indeed try to improve their pronunciation in ILT to enable their interlocutor to understand them.²⁷ Nevertheless, this is just a beginning, and more research will be needed with larger numbers to render the findings confidently generalisable.

The claim that phonological IL variation is the result of a process of suppression of L1 transfer also receives support from phonological theory. Recoverability theory has already been discussed (3.3.1). Stampe's natural phonology is also of interest (cf. Dressler 1984, for a recent account, and see p.38 above). According to the latter theory, child L1 acquisition is a gradual process of learning "to constrain the processes which are not characteristic of adult pronunciation. Therefore, the adult system is the residual set of processes which the particular language retains" (Major 1987:208). However, natural phonology also holds that L2 acquisition likewise involves "the gradual suppression of "natural" (i.e. very roughly, phonetically motivated) processes in accommodating to the phonological structure of the language in question" (Leather and James 1991:331). Thus, for example, a German L1 speaker who has not learned to suppress the universal process of terminal devoicing will gradually do so in the acquisition of his English L2.

Overall, the studies in this chapter have shown how convergence is able to account for variation in transfer both between two task types and within a single task type, depending on the speaker's moment to moment assessment of the interlocutor's receptive needs and difficulties, as weighed against the demands being made on his own productive capacities. We saw how in this process of evaluation, on the one hand, the relative risk factor of a particular transfer feature and the availability of contextual cues for the interlocutor, and on the other hand, the complexities of the

²⁷ A colleague has claimed to do the same when he speaks French as a lingua franca in multilingual groups.

phonological environment for the speaker, also came into play. We examined the role of phonological repertoire and found that after prolonged exposure, it was occasionally possible for speakers to converge on one another's deviant IL forms as well as on the forms of the target language.

The notion of convergence by means of the suppression of L1 transfer for communicational efficiency in fact enabled us to account to some extent for the phenomena of both variation according to phonological environment and the effect on the speaker of the presence of contextual cues. We saw in the first study how speakers appeared to make less cognitive effort to suppress phonological transfer if contextual cues, particularly extra-linguistic, were available to their interlocutor. The tendency seemed to be strengthened for 'problem' sounds when they occurred in certain 'difficult' phonological environments. This is a promising line of enquiry and of particular interest because up to now, it has been claimed that accommodation theory is unable to account for variation according to phonological environment (see p.103). A third area that convergence by transfer suppression appears to cast light on is the Labovian attention to speech model. This was discussed in Chapter Five and criticised for not being able to explain what causes a speaker's attention to vary in the first place. By means of the communication efficiency motivation, the accommodation framework is able to offer a solid rationale for attention to speech within ILT: when interlocutor comprehension is highly salient, the speaker attends more closely to phonological form and consequently, within the limits of his competence (repertoire) suppresses phonological transfer to the extent that it threatens such comprehension.

One final point concerns the motivation underlying the type of convergence that has here been identified. Tarone (1988) reporting her 1985 study suggests that it is the pressure a receiver places on a speaker to be clear that causes the latter to attend to the clarity of his message (see 8.1 below). While this is undoubtedly true, what the two present studies have revealed is the pressure which a speaker puts on himself, in other words the speaker's self-motivation born of his desire to be understood, a desire which Bell (1984) considers to exceed even the desire to be liked. It is this motivation which causes speakers engaged in ILT to make extra cognitive effort when they feel that the receiver's understanding is threatened.

In the final chapter, I will consider the pedagogical implications of the findings of the two studies, and go on to make suggestions for future research in this area.

Chapter Eight

Looking ahead: pedagogical implications and directions for future research

Chapter One began with a discussion of the problematic nature of ILT, with phonological error being identified as a major contributing factor to mis- and non-understanding. This was considered to be so particularly where the error derives from language transfer, itself one of the central psychological processes thought to underlie IL behaviour (Selinker 1972, 1992), because of the differential effects such transfer errors tend to have on the pronunciation of speakers from different L1s. In order to place the ensuing discussion and investigation of phonological transfer in context, Chapter Two briefly examined the phenomenon of language transfer in general. We traced its place in SLA theory over time and then examined its current status and the "richer language transfer perspective" (Selinker 1992:259) that now obtains, in which transfer is seen to interact in complex ways with developmental and universal processes.

Chapter Three looked closely at the way language transfer operates in the acquisition of L2 phonology, and Chapter Four at the categories of phonological error that result from the interaction of transfer with other processes. A new taxonomy of phonological error was established, based on both the common core of features shared by all NS varieties of English and the concept of mutual intelligibility in ILT. Those categories of 'error' excluded from the taxonomy were thence considered as acceptable features of varieties of English on a par with non-RP features of NS varieties. A selection of taxonomic phonological transfer errors were then examined and their effects on ILT assessed. It was noted, however, that because ILs are natural languages, they are dynamic and therefore subject to many influences which, in turn, lead to extensive variation. In IL phonology, it was argued, such variation is manifested primarily as variation in transfer errors and that in order to facilitate the reduction of these errors, their variable nature must be explained.

Chapter Five therefore followed with a brief survey of the main groups of theories which claim to account for IL variation, concluding that the one with the greatest potential to explain variation in phonological transfer error in ILT error was Giles's accommodation theory. Chapter Six examined accommodation theory in detail, paying particular attention to the motivation of cognitive organisation and specifically convergence for communicational efficiency. It was predicted that some sort of convergence involving a reduction of phonological transfer would occur in ILT when interlocutor comprehension was highly salient.

The two studies in Chapter Seven investigated variation in phonological transfer error in ILT within the accommodation framework, looking first at differences between different and same L1 dyads and then (twice) at differences resulting from two task types: social interaction and information exchange. In both studies, qualitative and quantitative evidence was found of the suppression of phonological transfer to promote interlocutor comprehension where this was particularly salient, as well as slight evidence of convergence over a period of time on the interlocutor's phonological errors.

We have thus come full circle in that the problem with which we began, ILT, is also to a large extent the solution. The greater part of the final chapter will therefore be devoted to considering the implications of this research for the EFL classroom, linking the findings to those of other recent research on ILT, and will then conclude with suggestions for future research in this area.

8.1 Implications for the English as a Foreign Language classroom

Widdowson argues that unless the findings of IL research can be exploited "to enable language teachers to contrive the most effective conditions possible in classrooms" for the language learning process to take place, by "providing particular kinds of warrant for teacher intervention, then they are of little pedagogic value" (1984:324). Although theories of second language acquisition are in themselves intellectually absorbing, the applied linguist, particularly one of the growing number who combine research with teaching and teacher training, will be concerned ultimately with ways in which these theories can inform practice. In the case of the present research, while offering support for certain pedagogical recommendations made by other researchers, the findings also suggest a number of new directions for the language classroom.

One overall conclusion to be drawn from this research is that pronunciation teaching paradoxically should involve both more and less: more in terms of its being given greater importance (as compared with grammar teaching, see 8.2 for further discussion of this point) and thus allocated more classroom hours, less in terms of the range of phonological items prioritised (the latter assuming that a nativelike accent is not the learner's goal). Another general conclusion is that for various reasons which will be discussed below, learners in multilingual contexts have a phonological advantage over those in monolingual contexts, in both the productive and receptive acquisition of L2 phonology, and extending to the reception of NNS as well as NS varieties of English.

We saw in the two studies in Chapter Seven that phonological transfer was by far the most frequent linguistic source of mis- and non-understanding in the different first language dyads, and that the pronunciation errors involved tended to belong to common core categories¹ (cf. Table 5, p.165 for a summary of causes of miscommunication in the main study). This suggests that where learners intend to use their English for international oral communication (i.e. the vast majority of EFL learners), considerably more classroom time than the typical one hour a week should be devoted to the mastery of target language forms in these areas (a more limited and thus realistic goal than the all-round mastery advocated by most pronunciation courses). Moreover, this should very probably include a reintroduction of the judicious use of drilling, however behaviourist its connotations, to enable learners to establish new target language habits, thus promoting automaticity in the production of core target forms. Because many of these errors are L1-specific, such teaching will inevitably involve a considerable amount of individual and small group help where multilingual classes are concerned, and this is likely to be time-consuming. In addition, while the language laboratory undoubtedly serves a purpose in allowing learners to practise non-publicly and to monitor their own output and compare it with the target, it in no way provides a substitute for the teacher.

The core areas thus require prolific and time-consuming coverage in the classroom, not only for production, but also for receptive purposes (see below). This means that teachers need to be very familiar with the articulatory and acoustic correlates of

¹ There were some exceptions to this, such as the Japanese substitution of /a:/ for /ɜ:/. Schwartz (1980) provides data showing a similar (non-comprehension) outcome as a result of this substitution, despite the fact that vowel length is not involved. Further research is clearly necessary to refine the common core.

the core target language sounds. It also implies a thorough grounding in stress and intonation, the notorious *betes-noires* of the EFL classroom, together with the ability to elucidate the 'rules' clearly and systematically, and provide relevant practice activities.² Teacher training programs may therefore need to be reassessed and reorganised, so that more prominence can be given to the understanding and teaching of 'difficult' areas of phonology and less to non-core areas (at least in terms of learner production).

Controlled pronunciation work based on the common core thus entails providing learners with a relatively short list of phonological priorities on which to focus, along with good models, abundant practice including drilling, and teacher-led feedback. On the other hand, freer activities can be designed to exploit the findings of the two studies in the previous chapter, namely that in different L1 dyads, learners engaged on a task where interlocutor comprehension is highly salient will be self-motivated to attempt to suppress phonological transfer. Information exchange tasks, which can be designed to suit all learner levels, are likely to elicit such transfer suppression. At the same time, they promote autonomy since learners themselves are responsible for monitoring the quality of their phonological output and converging on target forms in response to perceptions of their interlocutors' needs. Such ILT pairwork, where pronunciation is not the learner's immediate or even conscious aim, thus complements more controlled pronunciation work and is likely to speed up the acquisition of the target language phonology by providing an authentic and pressing need for the suppression of transfer.

Obviously such interaction is by definition impossible to organise in a monolingual classroom, which may at least partly explain why the accents of learners in such classrooms tend to fossilize sooner: quite apart from the fact that they are exposed only to same-L1 accents and perhaps those of NS teachers, they are not motivated to suppress transfer in order to be understood (cf. Allwright 1979:178 on the dangers of "classroom pidgins" developing in homogeneous groups of learners, and Bygate 1988:76-77, who maintains that monolingual groupwork "at least allows, and at worst encourages, fossilization and the use of deviant L2 forms"). On the contrary, as we saw in the SLDs of the main study, they find the accent of the same-L1 peer group easy to understand and perceive the same to be true for their interlocutors. Indeed, for various reasons (see below) they appear to converge on each other's IL accents, whether in pairs or small groups, thus compounding

² I have made suggestions elsewhere (Jenkins forthcoming) as to some ways in which core intonation areas could be tackled in practice. See also Dickerson (1987) on the benefits to the learner's L2 pronunciation of the teaching of formal phonological rules.

rather than reducing the problem for ILT. These findings concur with those of Long and Porter (1985), who argue that learners in groups composed of mixed-L1 backgrounds avoid the monolingual group problem of the development of classroom dialects only intelligible to speakers from the same first language.

The findings of the present research as regards the benefit to L2 phonology production of different-L1 pair and group work also lend support to the claims of other studies concerned with these interaction patterns, albeit that many of the latter studies represent the reverse side of the coin by focusing on the hearer perspective. A body of research from the past decade suggests that the speech adjustments resulting from negotiation in pair work and small-group work indirectly benefit the hearer's language acquisition by virtue of a link between the adjustments made in such work and the comprehensible input necessary for acquisition (see, for example, Larsen-Freeman 1985, Long 1985, Long and Porter 1985, Pica and Doughty 1985). Larsen-Freeman (op.cit.) indeed argues that peer input is often more accessible to learners than NS input (a claim supported in the pilot study in Chapter One, particularly in terms of pronunciation, for same-L1 speakers of English). In classroom contexts, apparently 'inaccessible' teacher input may reflect a reluctance on the part of the learner to negotiate with the teacher because of the power differential, particularly in whole class situations, where there is the added fear of appearing foolish in front of one's peer group (cf. Pica and Doughty op.cit., Rulon and McCreary 1986). Focusing equally on speaker and hearer perspectives, Tarone and Liu discuss the links between input and output, and argue that "it is in those interactional contexts where the learner needs to produce output which the current interlanguage system cannot handle that the learner pushes the limits of the interlanguage system to *make* it handle that output" (1995:120; emphasis in original).

Doughty and Pica (1986) claim that the significance lies not in group work itself, but in the nature of the tasks that are carried out within the group framework. Information gap tasks, particularly two-way tasks, they contend, promote far more negotiation arising from comprehensibility problems than do other task types. The manipulation of output in order to restore comprehensibility is thought to result in optimally adjusted input for the receiver. (See Ellis 1994:597 for a summary of research on the effects of task types on L2 interaction). Such negotiation of meaning is held to occur most extensively in groups of mixed-L1 backgrounds (cf. Bruton and Samuda 1980, Varonis and Gass 1985a, 1985b, Gass and Varonis 1991). It is thus ILT that potentially offers the greatest benefits to SLA for both the

hearer and the speaker: while the speaker is motivated to adjust his speech and, in particular, to suppress L1 phonological transfer, the hearer (as a direct consequence of such adjustments) is provided with comprehensible input.³

The main difference between the present research and the studies cited above (Tarone and Liu apart) is that whereas the latter emphasise the role of the hearer in pushing the speaker to be more comprehensible,⁴ the present explanation, in accordance with accommodation theory, stresses the role of the speaker. In other words, the phonological adjustments described in the previous chapter were motivated by the speaker's desire to be understood rather than by the hearer's desire to understand, albeit that the end result may have been the same, and that the actual adjustments made were a function of the speaker's perceptions of the hearer's receptive competence as well as of the speaker's productive competence and repertoire.

Long and Porter (1985) consider that we need more information regarding the optimum size of small groups. On this point, Pica and Doughty argue that because two-way tasks are likely to be most effective when only two participants are involved, "pair rather than group work on two-way tasks may ultimately be most conducive to negotiated modification of interaction and hence to second language acquisition" (1985:132), though they too call for further research in this area. In the present research, although group size was not specifically investigated, it is tentatively concluded that pair work is more likely to promote the suppression of L1 phonological transfer than is group work. The reasons for reaching this conclusion are similar to those with which the same-L1 dyad results in the main study were explained: first, the embarrassment factor, second the involvement of group identity and third, the lack of motivation for interlocutor comprehension (see 7.1.2 above; also Zuengler 1988, Takahashi 1989 for further discussion of embarrassment caused by speaking an L2 in front of the same-L1 peer group). It may indeed happen that in ILT group contexts where communicational efficiency is highly valued, for example in various academic settings, participants do indeed suppress L1 transfer to promote better interlocutor comprehension. However, there may always be an

³ Porter (1986) suggests that learners from the same L1 background may serve as better partners since their IL phonologies are mutually comprehensible. However, this ignores the greater potential that ILT has for promoting second language acquisition for both speakers and hearers.

⁴ This is also the stand taken by Tarone and Parrish (1988) in their reanalysis of Tarone's 1985 study of article variation (see p.110 above). See also Swain's discussion of learners being "pushed in their output" (1985:249). Bygate (1988), like Tarone and Liu is another exception in that he focuses equally on speaker and hearer perspectives, claiming that the acquisition of syntax is promoted in group work by the collaborative building up of messages.

element of the risk, where more than one participant from a single L1 background is present, of same-L1 speakers converging on one another's IL accents whether consciously or (more likely) subconsciously. Again, more research is needed in this area.

In terms of production, it is therefore concluded that controlled teacher-led pronunciation work will be of direct benefit to learners by drawing their attention to transfer in the core phonological areas and enabling them to reduce it by the development of new automatic motor plans. Meanwhile, less controlled pair and small group work, particularly involving information exchange, will provide a climate in which the learner's natural tendency to suppress phonological transfer is encouraged, and will indeed be likely to occur where the productive repertoire has been adequately expanded. However, bearing in mind that many learners' IL accents will nevertheless fossilize short of perfect command even in the core areas, we also need to consider the problem of learners' receptive competence in ILT and hence their exposure to each other's IL accents. Rather than leaving it to chance acquisition, specific classroom work should focus on this area by making pronunciation a topic of classroom discussion. Such discussion could highlight learners' pronunciation differences, and thus make explicit the more subconscious exposure to different IL accents that occurs in the language classroom (directly in multilingual contexts and increasingly through listening materials in monolingual). Allwright in fact argues for a more profound pedagogic value of discussions of the language itself within a communicative model of language teaching (though pointing out that teachers have not fully exploited their potential). He considers that they provide opportunity for enhanced learning, since "better understanding is likely to result if learners discuss their learning, and share their various understandings They may learn directly from each other, or, more likely, they will learn from the very act of attempting to articulate their own understanding" (1984a:158). Thus, these discussions would be of benefit not only to learners' receptive phonological competence, but also to their overall acquisition of the second language (see also Kenworthy 1987:39 on L1-L2 comparative work in the classroom).

Receptive competence has thus been extended to embrace competence, via extensive exposure, in different IL accents. Such exposure is optimally provided in pair and small-group work, whether learners are engaged in information exchange tasks or simply 'chatting' such as in the social interaction task of the two studies in Chapter Seven. This type of exposure will be difficult to arrange for monolingual classes.

As I have already argued, learners in such classes are not placed in the optimum conditions for the self-motivated suppression of L1 transfer and possibly for SLA in general. They also suffer from a lack of exposure to other ILs, so that in future ILT settings, they are likely to encounter the difficulties that learners in multilingual classes do indeed experience initially, but overcome with time spent in the company of their different-L1 peer group, both inside and outside the classroom. The challenge for teachers of monolingual classes is thus to find ways of approaching the conditions that obtain in multilingual settings. While this would seem to pose serious problems for face-to-face interaction (although recent developments in multimedia at least enable 'communicative' interaction of sorts to take place between learner and computer, which could be exploited for ILT objectives), exposure is a different matter. More enlightened materials producers are beginning to provide audio and even video recordings not only of different L1 varieties of English but also of L2 varieties. Comprehensive exploitation of these materials in monolingual classes in the EFL countries will provide much needed exposure to prepare learners for future use of English as a lingua franca in international contexts.

An additional way to enhance the exposure of learners in multilingual classes to a variety of IL accents would be the availability within each language school of a range of non-native teachers of different L1s (see Medgyes 1994, Lee 1995 for further discussion; see James 1994 for discussion of the different merits of NS and NNS teachers). While this would undoubtedly present logistical difficulties in some contexts, and has a number of implications for teacher training certification courses, it is an avenue well worth pursuing if these learners' receptive competence is to be effectively developed for interaction with other NNSs.

Exposure to NS varieties of English is obviously also required. Again, this is likely to be the norm in multilingual classes in the L1 countries. On the other hand, learners in the EFL countries (though not to the same extent as learners in the ESL countries) may be taught by someone from their own L1 group. Nevertheless, in all EFL learning situations, comprehensive exposure to the common features of NS connected speech is necessary, whether through the teacher or the materials, so that learners have receptive (though probably not productive) competence in NS spoken English. They will thus be able to cope with elision, assimilation, catenation, intrusion and weak forms,⁵ which are not included in the taxonomy outlined in 4.2, and therefore not recommended to be taught for production.

⁵ The teaching of weak forms for reception only is of course contentious, and many will take issue with it because of the interaction between rhythm and weak forms. However, see p.68 above and

The fear is frequently expressed by teachers and learners alike in multilingual classrooms that learners will somehow acquire one another's errors. If this were so, it would seriously weaken the arguments in favour of pair and small-group work in multilingual language learning contexts. However, research in this area suggests that the fear is unfounded (cf. Bruton and Samuda 1980, Porter 1986, Lightbown and Spada 1993). The present research comes to the same conclusions at least as far as phonology is concerned.⁶ Even over time, the DLD subjects of the main study did not reveal more than a very small sprinkling of one another's phonological transfer errors, and it is unlikely that they actually 'acquired' these in the sense of retaining them outside of the accommodative situation, i.e. the different-L1 pair work (though see p.171 for a rare example of this phenomenon). Indeed, in the previous chapter it was argued that a combination of repertoire and psychological resistance would militate against such acquisition.

As far as EFL pedagogy is concerned, we can conclude that in order to promote both successful ILT through the reduction of phonological transfer, and overall second language acquisition itself, there is a need for balance between teacher and (preferably different-L1) peer input in the classroom. For SLA, interaction with the teacher will provide both grammatically accurate and sociolinguistically appropriate input (both of which are lacking in peer group input, see Porter 1986). For IL phonology in particular, teacher input will provide practice in the core phonological items which are essential for the learner's production, along with exposure to NS features of connected speech that the learner needs to master receptively. On the other hand, for overall SLA, peer group input is likely to provide much comprehensible input which will subsequently become intake, while peer group interaction will provide more opportunities for output than is possible in a teacher-learner interaction framework. In multilingual groups, where such peer group interaction involves the exchange of information and other activities in which interlocutor comprehension is particularly salient, IL phonology will profit from the self-generated suppression of L1 transfer. Where comprehension is less salient, there will still be a benefit in the multilingual classroom in terms of the provision of exposure to other IL varieties.

Jenkins (forthcoming) for a defence of this position. See also p.128 above regarding the growing tendency among RP speakers to use the strong form of 'a', or /eɪ/, rather than schwa.

⁶ And since much of L2 syntactic and morphemic acquisition is thought to follow a relatively similar 'natural' order regardless of L1 (cf. Allwright 1984b for further discussion), learners are already likely to make many of the same errors. The worst they can do may thus be to reinforce one another's grammatical errors, much as same-L1 learners reinforce one another's phonological transfer errors.

8.2 Some directions for future research

We reach the final stage with a number of questions still partially or even completely unanswered. The following are among the most pressing:

1. One problem that was not solved concerns the specific nature of the convergence via suppression that we observed in the studies. In the main study, it appeared that the subjects initially attempted to suppress all L1 transfer, regardless of whether their interlocutor made the same error, made a different error with the same target item, or pronounced it correctly. I had hoped to come to conclusions as to the next stage, that is, was the reduction in transfer the result of growing phonological competence in the L2, or did the subjects subsequently begin to suppress transfer selectively in relation to their growing awareness of their partners' IL accents and thus to their perceptions of the degree of risk involved in any particular type or instance of transfer? It is tentatively suggested that some sort of selectivity entered the equation as time went on, leading ultimately to a very small amount of convergence on one another's phonological errors as increased exposure widened their repertoires. However, further detailed longitudinal research will be necessary to ascertain precisely what happens in this situation, possibly pairing up subjects who make both the same and different transfer errors on specific L2 items (but preferably not errors involving /θ/ and /ð/ substitutes as these seem to provide conflicting evidence). It would also be of interest to examine more closely the motivation for convergence over time, in order to discover whether it does indeed alter at some point on a 'convergence continuum' from communicational efficiency to a desire for rapport with the interlocutor. Finally, future research could also investigate whether there is an optimum period of classroom exposure to other IL varieties of English for both productive (transfer suppression) and receptive competence, before the risk of acquiring one's peer group's phonological transfer errors arises.

2. A second area that begs further research is that of intonation. The intonation research discussed in 4.2.2 indicated that learners transfer their L1 intonation patterns onto their L2 English with widely differing results, while the small-scale study reported in the same chapter (pp.89-92) suggested that the NNS subjects had passive but not active competence in nuclear (contrastive stress) placement. The data collected for the two studies in Chapter Seven were not examined specifically for instances of transferred and correct intonation patterns in relation to the salience

of comprehension. Nevertheless, the recordings appeared to contain a number of examples of both correct and incorrect (possibly transferred) patterns of nuclear stress. It would therefore be of interest to subject intonation to the same scrutiny within the accommodation framework as sounds were subjected in the present research. However, because of the complexity of the English intonation system, the existence of a number of intonation universals (cf. Cruttenden 1986) and the fleeting nature of intonation, it may prove very difficult indeed to pinpoint clear instances of correct and transferred patterns.

3. Another area that merits further investigation has already been discussed briefly in this chapter: differences between learners from monolingual and multilingual classrooms. It would be particularly interesting to find out the extent of the differences, in both degree and kind, and in both productive and receptive phonological competence when the learners were engaged in ILT subsequent to their period of study. We would then have evidence to show how much learners from monolingual contexts are disadvantaged in international settings.

4. The optimum size for small-group work: does pairwork promote a better quality of interaction, as is tentatively concluded in this research and some of the literature discussed? On the other hand, could it be the case that in contexts where there is cooperation between interlocutors (such as the EFL classroom and academic settings) and interlocutor comprehension has high salience for all participants, that the cooperative principle will prevent any same-L1 members from converging on each other's ILs and will thus promote the suppression of transfer?

5. We need more information regarding the extent to which syntactic and morphemic transfer affect comprehensibility (if at all) and whether interlocutors attempt to converge on one another's grammar via suppression of L1 transfer in the way they suppress pronunciation transfer. In view of the developmental nature of much grammatical error and the natural order, insensitive to context, that most learners follow (Allwright 1984b), this would seem unlikely. The data in the present research contain much grammatical error but very little leading to problems of comprehensibility, thus supporting Brock et al (1986), who argue that morphosyntactic errors are of lesser communicative significance and permit the main line of discourse to be continued. If grammatical error is indeed found to have a relatively minor effect on comprehensibility in ILT, this indicates an imbalance in the majority of teaching programs: most EFL learners intend to use their English

internationally, and yet most syllabuses devote far more time to the study of grammar than to pronunciation.

6. It would also be of interest in future research to investigate whether a link does indeed exist between suppression and phonological universals connected with the linguistic environment, of the type suggested for the Japanese substitution of /gr/ with /gl/ (see p.168).

The final two areas for further investigation, while peripheral to the main focus of the present research, arose out of it and now pose interesting problems:

7. Earlier (pp.167, 189) I noted a problem with one of the common core criteria, namely that errors in vowel quality as opposed to quantity were unlikely to cause comprehension difficulties. However, in practice, this was found to be inaccurate in a small number of cases, particularly the Japanese substitution of /a:/ for /ɜ:/ in certain words. The common core and subsequent taxonomy of IL errors proposed in Chapter Four would therefore repay further investigation and refinement.

8. Finally, the two studies in Chapter Seven revealed a number of differences between the eastern and western subjects, which warrant further investigation both in themselves and in relation to communicative oral examining. The Japanese subjects in particular spoke slowly and carefully, paused frequently, and said little in relation to their interlocutors. They appeared to devote an inordinate amount of attention to their pronunciation to the detriment of other aspects of their output. Interestingly, both Japanese subjects in the replication indicated on their questionnaires that they considered their English to be 'less normal' (in terms of pronunciation) than that of speakers from other L1s, while the two Japanese subjects in the main study indicated that they did not consider their English to be 'more normal'. On the other hand, none of the other replication subjects considered their English to be 'less normal' and three of the four other main study subjects thought their English was 'more normal' than that of other L1 speakers. This could help to explain why the Japanese subjects paid so much attention to their pronunciation and thus made relatively few errors on the recordings as compared with their everyday classroom output: they felt that their pronunciation was difficult for their partners to understand and wanted to ensure that it did not lead to difficulties and consequent loss of face during the recordings. It may therefore be that such learners are disadvantaged in communicative oral examinations such as

CAE,⁷ where they are likely to lose marks in areas such as 'grammatical accuracy and vocabulary range' and 'communicative ability' through the over-monitoring of their pronunciation. It has certainly been my experience as an oral examiner that eastern students, particularly Japanese, rarely perform well in such examinations.

This thesis began with the claim that because ILT is a growth area, English as a Foreign Language pedagogy should adapt itself to preparing students specifically for this type of interaction. Over the subsequent chapters, it emerged that pronunciation is both the cause of and solution to problematic ILT, by virtue of phonological transfer errors on the one hand and accommodative suppression of such errors on the other. Because of the nature of IL and ILT, I have argued emphatically for equipping our learners with productive competence only in certain core areas of pronunciation, and receptive competence in other areas of both NS and NNS regional varieties of English. The English language no longer belongs to its native speakers, as several authorities both recent (for example, Widdowson 1993, Lee 1995) and less recent (for example, Broughton et al. 1978) have pointed out; nor should we wish it to if we want English to remain as the language of international communication. At the end of the twentieth century we must finally acknowledge within the EFL community⁸ in both English L1 and L2 countries the existence accent-wise of two distinct and acceptable branches of English varieties, viz. all NS varieties and all EFL varieties, and adjust our pedagogical goals accordingly.

⁷ Other points which can be made with some confidence about the CAE oral examination as a result of the findings of this research are as follows: candidates who prepare together for the interview are likely to have an advantage over those who do not, owing to increased mutual familiarity (cf. Varonis and Gass 1982, Gass and Varonis 1984). Where candidates come from different L1s, they are likely to have an advantage in terms of pronunciation, since they are more likely to suppress L1 transfer than to converge on the same-IL forms. The most advantaged candidates, all else being equal, are thus those from different L1s who have prepared together for the interview. On the other hand, in the absence of such preparation, same-L1 candidates have a distinct edge over different-L1 candidates as regards mutual comprehension.

⁸ I do not include here the whole complex question of the status of the so-called ESL varieties (see pp.10-11 and references cited there).

KEY TO ABBREVIATIONS

CAH	Contrastive analysis hypothesis
CAT	Communication Accommodation Theory
CLI	Cross-linguistic influence
DLD	Different-L1 dyad
EAP	English for Academic Purposes
EFL	English as a Foreign Language
ELT	English language teaching
ESL	English as a Second Language
FT	Foreigner talk
IL	Interlanguage
ILT	Interlanguage talk
L1	First language
L2	Second language
LT	Language transfer
NLT	No language transfer
NNS	Non-native speaker
NS	Native speaker
RP	Received Pronunciation
SAT	Speech Accommodation Theory
SLA	Second language acquisition
SLD	Same-L1 dyad

APPENDICES

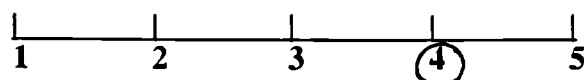
APPENDIX A

Pilot study questionnaire

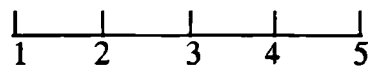
1. Put each of the following groups of speakers at one of the five points on the scale next to them according to how well you understand them when they speak *English*:

- Point 1 = you find it **very difficult** to understand them
 Point 2 = you find it **fairly difficult** to understand them
 Point 3 = you find it **not too difficult** to understand them
 Point 4 = you find it **fairly easy** to understand them
 Point 5 = you find it **very easy** to understand them

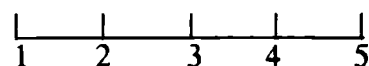
So if you find British people who speak English like BBC newsreaders **fairly** easy to understand, put a circle round number 4 on the scale:



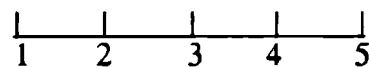
(a) People who have completely different first languages from yours, but speaking in English.¹



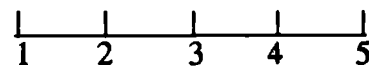
(b) People with your first language, but speaking in English.



(c) People with first languages related to yours (as French is related to Italian and Spanish, or German to Dutch and Danish).



(d) British people who speak English like BBC newsreaders.



¹ The four conditions, a, b, c, d, were randomised.

2. What are the problems?

Put a tick ✓ by any of these things which make it difficult for you to understand English when it is spoken by people with different first languages from yours:

1. Their pronunciation of vowels (*a e i o u*), for example the underlined sounds in cat, bed, hot, but, bread, wait, etc.

Are any particular vowel sounds difficult to understand when spoken by people with particular first languages? _____

2. Their pronunciation of consonants (all the sounds of English except the vowels), for example, the underlined sounds in cat, bed, heat, etc.

Are any particular consonant sounds difficult to understand when spoken by people with particular first languages? _____

3. Their articulation (i.e. how clearly they pronounce their words).

4. Their intonation (the way their voices go higher and lower, rather like singing). For example, the way the voice moves downwards and then up again in this question:


Do you want some coffee?

5. Their word stress (the loudest part of a word, e.g. 'coll' in *college*).

6. The volume of their speech (loud or quiet).

7. The speed of their speech (fast or slow).

8. Their grammar.

9. Their word order.

10. Missing words.

11. The type of vocabulary (words and expressions) they use.

12. The amount of formality or politeness in their speech (more/less formal/polite than your first language).

13. Different customs used in conversations.

14. Think of an occasion when you found it very difficult to understand someone speaking to you in English (but not someone whose first language was English). Why was it difficult for you to understand that person?

Responses to Question 14

All responses are quoted verbatim and therefore contain respondents' errors.

1. I had some problems to understand a girls from Greek because she didn't pronounce very clear. (The same with people from Arabia).
2. Arabic, r.
3. -
4. His pronunsiation.
5. It is because the accent is different.
6. Pronunciation of Indian people.
7. Accence.
8. -
9. Pronounciation
10. -
11. 3, 4, 7
12. (not clear)
13. Because of his pronunciation and the low volume of his speech.
14. Pronounciation is not clear.
15. -
16. ex. tournament /t-/ prounced in /d-/ in Pakistanian.
17. Pronunciation is wrong.
18. I don't know this person before and I'm not sure the situation.
19. The person speaks very fast, and his pronounciations are not clear.
20. Mainly because of speed, pronunciation, and intonation.
21. Because they have their particular pronounciation of consonants (mostly).
22. When the subject is general English.
23. Some people speak "r-sound" very strong. Their pronunsation is sometimes different.
24. Because he spoke very fast.
25. -
26. because of different vowel sound they used
27. His pronounciation and vocabulary
28. So far no such occasion occured
29. Wrong pronounciation, wrong word
30. I didn't understand because I didn't fell confortable in that situation.
31. Once in the hall, a girl from Sri Lanka phoned. The person she wanted to talk to wasn't here. Understanding her message, her name and her tel. number was a nightmare.
32. discussion with Japanese people.
33. pronounciation - speed - unknown words
34. -
35. Indian lecturer, spoke to fast
36. -
37. -
38. -
39. -
40. His articulation
41. -
42. -
43. -
44. -
45. Discussions during the lectures or any occasion when people not directly talk with me.
46. -
47. The pronounciation of the words they speak.
48. Some asiatic people who, can't apparently, pronounce correct and they try to speak very fast.

APPENDIX B

Intonation study prompts

SET ONE

1. You can see a new car parked outside the school. You want to know who it belongs to, the Principal or his secretary. You ask a friend:

Has the Principal bought a new car, or has the secretary bought one?

2. The Principal arrived at school this morning in a new-looking car. You want to know whether it is really brand new, or whether it is in fact second-hand. Later you ask a friend:

Has the Principal bought a new car, or has he bought a second-hand one?

3. When you arrived at school this morning, there were a new car and a new motorbike parked outside the building. You know one of them belongs to the Principal, but you are not sure which. You ask a friend:

Has the Principal bought a new car, or has he bought a new motorbike?

4. When you were walking to school this morning, you thought the Principal drove past you in a new car, but you are not sure that it was really him. Later you ask a friend:

Has the Principal bought a new car, or am I mistaken?

5. The Principal arrived at school this morning in a new car. You want to know whether he has actually bought it, or has simply hired it. Later you ask a friend:

Has the Principal bought a new car, or has he hired one?

SET TWO

1. A student tells you that her landlady gave her a very good lunch yesterday. You know that her landlady usually buys take-away food, and you want to find out whether she cooked yesterday's meal, so you ask:

Did your landlady cook you a good lunch yesterday, or did she buy it?

2. A student tells you that his landlady gave him a very good lunch yesterday. You know that his landlady is a terrible cook, so you think you may have heard him incorrectly. You ask:

Did your landlady cook you a good lunch yesterday, or did you say *ghastly*?

3. You are discussing English food with a student. She tells you that she had a very good lunch at the home of her host family yesterday. You aren't sure whether it was her landlady or landlord who cooked the lunch, so you ask:

Did your landlady cook you a good lunch yesterday, or was it your landlord?

4. A student is telling you about a really good lunch that his landlady cooked for him recently. It was the student's birthday yesterday, and you want to know if that was when he was given the good lunch, or whether it was some other day. You ask:

Did your landlady cook you a good lunch yesterday, or was it on another day?

5. A student tells you that her landlady gave her a very good lunch yesterday. You are sure that she is only given breakfast and dinner by her host family, and you think you may have misheard, so you ask:

Did your landlady cook you a good lunch yesterday, or was it dinner?

SET THREE

1. A French student at your school tells you that her sister has been involved in a car accident in England and has broken a bone. You think she said it was her ankle, but you are not sure you heard correctly, so you ask:

Did your sister break her ankle in a car accident in England, or was it her arm?

2. You hear that the sister of a French student in your class has come to stay for a few days, and that she has hurt her ankle in a car accident in England. You want to know how serious the injury is, so when you meet the French student, you ask:

Did your sister break her ankle in a car accident in England, or did she only sprain it?

3. A French student tells you that his sister has come to stay with him in England for a few days, and that she has broken her ankle in a car accident. You want to know whether she broke her ankle here or in her own country, so you ask:

Did your sister break her ankle in a car accident in England, or was it in France?

4. A French student in your class has invited her sister and female cousin to stay with her in England for a few days. Just after they arrive, they are involved in a car crash and one of them breaks her ankle. You think the injured person is the student's sister, but you are not sure, so you ask:

Did your sister break her ankle in a car accident in England, or was it your cousin?

5. A French student at your school tells you that his sister has broken her ankle in an accident in England. You have already been told about the accident by other students, but some said it was a car accident and others that it was a climbing accident. You ask the French student:

Did your sister break her ankle in a car accident in England, or was it in a climbing accident?

SET FOUR

1. A student in your class plays tennis and squash. He has left both his rackets in his country, but he wants to play these sports while he is in England. He has only enough money to buy one racket and goes to the local sports centre to choose one. When he returns, you ask him:

Did you buy a tennis racket at the sports centre this morning, or was it a squash racket?

2. A student in your class visited the local sports centre yesterday and again this morning. Later, she tells you that she bought a tennis racket at the sports centre, and you want to know when she bought it, so you ask:

Did you buy a tennis racket at the sports centre this morning, or did you buy it yesterday?

3. A student in your class decided to start playing tennis, but hadn't got a tennis racket. This morning he went to the local sports centre. When he returned, he was carrying a tennis racket. You want to know whether he has bought the racket or just borrowed it, so when you meet him later in the day, you ask:

Did you buy a tennis racket at the sports centre this morning, or did you only borrow one?

4. A student in your class has a brand new tennis racket, and he tells you that the racket was bought this morning at the local sports centre. He has a wealthy girlfriend, so you want to know whether he bought the racket himself, or whether his girlfriend bought it for him. You ask:

Did you buy a tennis racket at the sports centre this morning, or was it your girlfriend who bought it?

5. A student in your class went out to buy a tennis racket this morning. You had advised her to look at the rackets in both the sports centre and the tennis club. When she returns with a racket, you ask her where she bought it:

Did you buy a tennis racket at the sports centre this morning, or at the tennis club?

LISTENING TASK

You will hear the first halves of 20 questions. Each time, the question will be one of these four types:

1. Has the Principal bought a new car,?
2. Did your landlady cook you a good lunch yesterday,?
3. Did your sister break her ankle in a car accident in England,?
4. Did you buy a tennis racket at the sports centre this morning,?

Each time you hear the first half of a question, choose the second half from the lists below and write the letter next to the question number on the other piece of paper.

For questions of type 1, choose from these second halves:

- a) or has the secretary bought one?
- b) or has he bought a second-hand one?
- c) or has he bought a new motorbike?
- d) or am I mistaken?
- e) or has he hired one?

For questions of type 2, choose from these second halves:

- f) or did she buy it?
- g) or did you say *ghastly*?
- h) or was it your landlord?
- i) or was it on another day?
- j) or was it dinner?

For questions of type 3, choose from these second halves:

- k) or was it her arm?
- l) or did she only sprain it?
- m) or was it in France?
- n) or was it your cousin?
- o) or was it in a climbing accident?

For questions of type 4, choose from these second halves:

- p) or was it a squash racket?
- q) or did you buy it yesterday?
- r) or did you only borrow one?
- s) or was it your girlfriend who bought it?
- t) or at the tennis club?

APPENDIX C

Complete transcripts of Main Study

TRANSCRIPT CONVENTIONS (adapted from Allwright and Bailey 1991)

xx indicates unintelligible speech (garbled or inaudible).

xx xx indicates one long unintelligible utterance.

... indicates a long pause.

A dash joining two words or part words not normally hyphenated indicates self-correction without a pause.

A dash at the beginning of the line, preceding the speaker symbol (e.g. -S) indicates completion of an interrupted/overlapped utterance.

Curly brackets in the left-hand margin indicate wholly overlapping speech.

Indented lines indicate partially overlapping speech.

Parentheses within the transcript indicate probable but uncertain transcription.

Square brackets indicate the transcriber's gloss.

Phonetic symbols are used alone where orthographic transcription is problematical and to supplement the latter where relevant.

Stefan and Yumiko [1]

PHASE A

S: Okay, Yumiko, er, how old are you?

Y: [laughs] How old do I look?

S: Yes, you should answer me, you should answer my question.

Y: I'm twenty-five years old

S: Twenty five, and, you come from Japan, I guess.

Y: Yes.

S: And what are you doing in Japan?

Y: I graduated from university and then I worked at information company.

S: Uh huh. And what were your subjects at university?

Y: English linguistics. Do you know?

S: No I don't know about linguistics. You studied English as a language?

Y: Uh, yes

S: So why are you here?

Y: Mm, uh, because I want to be a translator, so I'd like to get to know the way of living in England or in English-speaking country.

S: And when you go back to to Japan, what are your plans?

Y: Uh ... I haven't decided yet.

S: You will, but you will go back to work for this information company again?

Y: Oh no!

S: You quit there?

Y: Yes, I quit there.

S: And er who is paying for you here?

Y: Uh, me and my mother, half and half.

Y: Uh [laughs]... are you a student?

S: Not any more.

Y: But what are you do-what do you do?

S: At the moment I'm working in a bank.

Y: Mm mm what what um what did you major in university?

S: As I studied business and economic-economy for er three years

Y: Oh

-S: and I finished it two years ago.

Y: How is your job? ... How do you feel your job?

S: At the moment it's great because they're paying for me to stay here in England. It's like being on holiday.

Y: I heard that

S: Actually it is huh it is holiday.

-Y: I heard that it is difficult for you for you Swiss to find a job.

S: No. No, no. If you studied something, if you finished school and, it's not a big problem to find a job. But in Switzerland, now it's a time of recession too, so for everybody it's a little bit dif-different now. Two years ago there's no problem, but it's not as big a problem as here in England, but becomes slowly a problem.

PHASE B

Y: I can see a round table in front of the sofa ... and there is a round box, perhaps which is made of wood and a co-coffee cup and saucer filled with coffee and biscuit. And, at the right right of sofa there's a basket with in which kn-knitting, someone someone knitted it, sweater or something, and mm there mm there are four pictures on the mantelpiece and a carving of wood bird and uh flower flower vase, square box...

S: Where are the sweets? On the right side of of the of the sofa?

Y: Ss...

S: The box with the sweets.

Y: Ah yes.

S: D-They're on the table?

Y: mm on the round table and the

S: And what I didn't get was the, where are the pictures?

Y: Pictures uh

S: Are on the wall?

Y: Yes, on the wall.

S: Four pictures?

Y: Yes.

S: But not on the same wall?

Y: Dog and sheep and (pig /pɪkʃ/) [laughs]

S: And er you mentioned a table. Where is this table?

Y: Table mm in the mid ... /t/

S: In the middle of the room?

Y: Yes, but um I don't know, um chest, maybe chest, not table.

S: And it's a round table?

Y: Yes, a round table is in front of the sofa ... and...

S: And how many, can I go on with the questions? [addressed to teacher]. How many sofas are in the in your room?

Y: Ah [laughs].

S: Only one?

Y: No, two. ah mm long sofa and ... a sofa for one person.

S: Uh huh ... And I have to find out the differences now? [addressed to teacher]

S: Is there a a fire too in this, there is an oven /əʊfən/

Y: Oven? [repeats mispronunciation]

S: With a fire in it... In the middle of, right in the middle of the room. At the wall, or in the wall.

Y: In the wall?

S: Uh huh.

Y: In the wall... A fire in in the fireplace?

S: There is some wood with with burning... which is burning....

Y: water? water?

S: No, in the wall, (wall /= wɔ:l/)

Y: In the wall

-S: there is a is a is an oven /əʊvən/

Y: Ah, mm, yes ... perhaps ...

S: There is a fire in it?... No fire?

Y: No fire.

S: And then, in my picture is a small TV in a corner of the room.

Y: Mm no, and at the top of the shelf there's a vase.

S: A what?

Y: A v-vase.

S: With flowers in it?

Y: No. And the second shelf there's a saucer ... L-like a bowl, bowl.

S: Okay, there is one picture where in front of the picture is a couple, a man and a women. They are standing at the beach and, er, I think a few metres behind them is a small sailing boat. And you can see a a man who's standing near the sailing boat ... And this this couple is looking at each other and she's holding his arm. Can you tell me?

Y: Yes.

S: Then there is a scene at the beach too, there are six or seven er sailing boats in one row on the beach. There is one surfer in in the sea, a few guys who are swimming or or standing in the water. And behind these rowing boats is a-er behind these sailing boats is a ... I guess it's a it's a hotel complex.

PHASE C

S: Do you want to start?

Y: Um th-this is a potato ...

S: Yes.

-Y: so maybe it stands for couch potato.

S: Er, I think this potato represents er a young guy of about twenty years .. eighteen, twenty, twenty-five, something in between, because of he is wearing sports shoes, he's eating er junk food and he has a /rɑ:/-a remote control in his, I think in his fingers, and he's watching all all these video tapes.

Y: He he spends his time most in watching video.

S: Yeah. And because of everything is untidy and there is food and pizz..pizza on the table and ... some crisps on the floor and ... Yeah he must be a teenager, he's, he's watching TV all the time instead of doing his homework.

Y: And and his parents are out all during the daytime.

S: Uh huh.

Stephanie and Reto [1]

PHASE A

R: What do you work?

S: I work in insurance company, in Bienne. It's a bilingual city in Switzerland.

R: You do the normal office work as a secretary or er what are you doing there exactly?

S: Erm, it's like a secretary, but my department is general insurances and I'm alone

R: Yeah.

-S: so I used to answer all the telephone erm to explain erm every kind of insurances, erm writing letters to the customers, everything.

R: Mm. And what are you doing after work, in the evening? What are your hobbies?

S: My hobbies? Erm, twice a week I go to my dance courses, modern jazz courses ... erm I started ballet when I was six years old and erm it's nice there ... I like dancing.

R: Yeah. What kind of dance do you have-er do you practise?

S: Now?

R: Yes.

S: Er modern jazz dance.

R: Yeah ... means it's a single single dance, not with a partner?

S: No, it's a single dance. You can you can you have some choreography er and you are two or three people ... but usually you are alone.

R: Yeah, yeah.

S: Which part of Switzerland do you come from?

R: Er I come from Lucerne, but that means near Lucerne, I live in a quite a small village about er eight kilometres from Lucerne.

S: Do you speak Swiss-German?

R: I speak Swiss-German, yeah, that's my tongue language.

S: Do you speak another language?

R: Er ... /pf/ I speak normal German ... I learned this at school and er a little bit French.

S: A little bit French.

R: Yeah.

S: What is your work?

R: What?

S: What is your work?

R: Er my work ... I work for UBS, I'm a banker and there I'm in the trading department for er Japanese warrants.

S: So you need English.

R: I need English everyday

S: Everyday. That's good.

-R: because we have just contact either with English brokers or er Japanese brokers.

S: Mm

-R: so ... we have to speak English.

S: Yes, good.

R: Over the (wire) [laughs]

S: [laughs] And what do you do after your work?

R: Evening?

S: Yeah, in the evening.

R: It depends ... I've got quite a long journey everyday because I live in Lucerne and have to go to work to Zurich to the stock exchange.

S: Mm.

R: And I-that's takes me about three hours every day just er for this journey... and then in the evening I either I go out with friends or er go to a pub or or I stay at home ... it depends [laughs]

S: [laughs]

PHASE B

R: Okay, my picture it's a photograph taken from from from outside the room and you can see in a room and that's the living room. You er see there a kind of table. There are flowers on it, a cup of tea, er sweeties, books and so on. Er... there is as well a armchair where a book is on it who is open-or which is open and erm ...there is a, I don't know, how how do you say, Kanapee [= German 'sofa'] or

S: Sofa.

R: Sofa yeah, there is also a quite a big sofa with pillows on it and I think it's a quite nice living room, typical English.

S: [laughs]

R: [laughs] And on the wall there are some picture pictures of a dog er or an animal I think. There is no no TV. I think that isn't very typical for for England [laughs]

S: [laughs]

R: No no TV and no er radio.

S: [laughing] Mm.

[Examiner asks S if she has any questions for R]

S: Erm ... you have a chimney?

R: Yeah.

S: Which colour?

R: Erm black.

S: So you have no television, or TV.

R: No. No TV in there. And the sofa, er, the sofa has got flowers on it er you know

S: Uh huh.

R: And it's quite red, and also the ... armchair is red.

S: And some toys /taɪz/ on the floor.

R: Pardon?

S: Some toys... on the floor.

R: erm... not toys. But there is something for example to er to make a pullover you know.

S: Ah, uh huh.

R: Er my grandmother (could do-er) make make these er self-made pullovers.

S: Yes.

R: But there is there is a basket on the floor with er wool er wool [/wɔːr/ both times] in it.

S: Uh huh. Er do you have some some candlelights erm in the chimney?

R: Erm no, no candlelights, there is one light I can see and this is electric light ... no two. One is on the erm ceiling /selɪŋ/

S: Ceiling [corrects R's pronunciation]

R: Alright xx ceiling, and the other one is er on a cupboard, but these are two electric lights.

S: Okay.

S: Erm. My picture. There's a beach with the sea [laughs]

R: Mm. Huh.

S: Erm ...a man and woman are walking along the beach.

R: Mm.

S: They're talking each other ... erm there is a little boat, I don't know the name, er

R: Uh huh.

-S: and... there are two or three chairs erm ... Yeah, that's all. Yeah?

R: It's okay ... I have to choose another one? [addressed to teacher]

S: Okay. Erm there is a hotel, near the beach, a white hotel er... three or four people are swimming in the sea, erm, there are two boats ... the beach is very crowded ... erm that's all.

R: The first picture I know which one it is, but the second one er where is this picture taken from?

S: Erm.

R: Outside the sea or erm

S: On on the sea, I think it's someone is on on a boat

R: Yeah

-S: and is taking the picture.

R: And far away from the

S: No, very near.

R: Very near.

S: Yes, so near, yes.

R: Mm. And there are three peoples er people standing in the water.

S: Yes.

R: That's right. Okay.

PHASE C

- R: I think this picture shows a person er who ... doesn't like to work, who likes to stay at home watching videos, smoking, drinking.
 S: Maybe he's unemployed.
 R: Yeah, maybe he is, yeah. But I think now I wonder that that he is er unemployed
 S: Yes
 R: because he doesn't show any activi..activities and er it seems to be he seems to be very very lazy and er
 S: Yeah that's what I think.
 R: Yeah.
 S: He is not very old... twenty-five, thirty years.
 R: Yeah ... But I think a lot of young people in these days spends their week-their weekend like like this, (should be different.)
 S: Yeah.
 R: If they finished school at Friday they go home watching videos, don't don't go out and don't
 S: eating
 -R: don't meet any friends
 S: MacDonald's meals, yes
 R: I think that's a a social problem, that a a lot of young people
 S: Uh huh.
 -R: spend the weekend or er the s-spare time like this.
 S: Yes, sure.

Masae and Philippe [1]

PHASE A

- M: What do you do in your country?
 P: Erm, I work for a bank, for a big bank, Union Bank of Switzerland. (You might have heard about it.)
 M: And where is your company?
 P: I work in er Zurich, it's a big town in the middle of Switzerland
 M: Ah Yeah, I know it
 -P: but I live in Lucerne, it's about one hour away from Zurich.
 M: And what are you interested in, nowadays? [laughs]
 P: I'm interested in er mainly sports, a lot of sports. I play a football club,
 M: Mm.
 -P: and I often play tennis, squash and in winter of course I er go skiing.
 M: And do you play football in England?
 P: Erm sometimes, but not very often because er the grounds aren't very good here.
 M: [laughs] And do you go football ma-football match?
 P: Pardon?
 M: In England. Have you been to football match?
 P: No, not yet, but er because I live quite close to to the Crystal Palace stadium I plan to go but er I wait until a famous team is playing there
 M: Ah
 M: Mm mm huh. I've been there twice.
 P: Yeah?
 M: Yes. [laughs]
 P: And you are staying in Crystal Palace (and Norwood Junction) or were you?
 M: Yeah. I went to Crystal Palace stadium
 P: Yeah.

M: On foot.

P: And who did play?

M: Crystal Palace against ... Liverpool

P: Yeah?

M: Mm. And ... one other [laughing] I can't remember which team.

P: And was it exciting?

M: Er...actually it was so, so-so. But (I like football).

P: Yeah, so (you like football?)

M: Yes, very much.

P: But you don't play yourself?

M: No. I joined soccer /sʌkə:/ club /klʌv/ in Japan.

P: Pardon, you did what?

M: I joined soccer club, but it was just supporting

P: so oh, soccer.

M: ... Mm, do you have any brother or sister?

P: I've got one brother, he's twenty-four and er no sisters.

P: First I'd like to know how old you are.

M: [laughs] I'm twenty-one years old.

P: Twenty-one.

M: And you? How old are you?

P: Er, how old am I? [laughs] Two-twenty-two. Yeah.

M: Good.

P: And what do you do in Japan?

M: I am a university student... in Japan.

P: What do you study?

M: I study ... how can I say? It's difficult. Name of the course is living art. We study about history of everything, for example, clothe, architecture, art, mm, like culture ... (or about sculpture.)

P: How long have you been here in England to study- studying?

M: England?

P: Yeah.

M: I've been here for, ah, s-nearly seven month.

P: Seven months, and you are staying until December?

M: Yes.

P: Or even longer?

M: No. I'm going back to Japan in last-um next March, but I'm not sure what I'm doing after /dʒ/-after this course ... I haven't decided yet.

P: Yeah, but er when you go back to Japan you are going to the u..back to the university?

M: Yes. I have to go to university two more years.

P: I see ... and what are your main hobbies?

M: Hobbies?

P: Yeah.

M: I used to dance classic ballet, but I haven't danced since I came to England, and another, mm, I like watching sports such as football, baseball, mm football, baseball.

P: Are you doing any of these sports here in England or

M: No.

P: No.

M: I'm thinking to go to the class of classic ballet

P: Yeah

-M: but I'm not very good because I haven't danced for six seven month ... it's difficult.

PHASE B

P: Well, my picture shows a a living room, it's not a very big one. Erm, I see three windows and there are er two chairs, one big one and a smaller one... And, no I don't know it's called but you can, I think it's a, where can I make fire, you know what I mean? And er on the right hand side I see a cu-a small cupboard with books and plates in there. There are some pictures the wall ... and erm sm-small table and also another sm-very small wooden chair

M: Wood chair?

P: Pardon?

M: Wood wood chair?

P: Chair. Small one. There are two more or less big ones in the middle of the room on the left hand side close to the window is a small wooden one. And there's another cupboard on the right hand corner of this room and erm that's xx [speaks very quietly].

M: Is the room cleaned or is it ...

P: Yeah, it's er it's clean but it's er rather untidy.

M: Mm.

P: And everywhere are er erm are things lying around like piece of clothed and books and er these are cookies, and a cup of coffee I think and a small basket, (a lot of things).

M: Mm ... there is one one yacht and one couple, boyfriend girlfriend I think, I don't know if they're boyfriend girlfriend, and the other picture um there are a lot of yachts

P: A lot of?

M: Yacht, boat, I don't know the name exactly... um like ship

P: Ships

M: Wind wind

P: Sailing

M: Yeah yeah.

P: Ah, I know what you mean.

M: Which are put in order

P: Yeah.

-M: near seaside ... mm ... do you have any question?

P: Yeah, the first picture you mentioned, um are there some other people on this pi-picture or just the couple?

M: Just the couple.

P: Yeah?

M: Yeah.

P: But there are some some chairs?

M: Yes, some chairs. Two people are

P: Yeah, are are lying there

-M: are lying there.

P: Okay. In the second picture you mentioned in the background you see er houses or a hotel.

M: Mm, yeah.

P: That's right.

PHASE C

M: I think he is a boy.

P: Yeah, I agree. I think it could be a a young American boy.

M: Mm.

P: A typical one with erm I see some sort of fast food, baseball shoes and er, he's he's er strong, he's like a big potato.

M: Yeh, it mentioned couch potato, I think.

P: Pardon? What?

M: Couch couch potato, do you know couch potato?

P: No.

M: Er couch potato is erm watching TV. I'm not sure but I think it couch potato mean people who like watching TV, relaxing (in room) ... maybe, I don't know.

P: Ah yeah, I see, yeah, it is.

Watching TV, that's also quite typical. I think he could be fifteen, sixteen.

M: Yeah ... he could be.

P: xx videos.

M: I think so too because there are a lot of video cassette.

P: Yeah, that's right. It's quite a mess.

M: Yeah [laughs]. And... yeah. He must be mm la-lazy... I don't know [laughs].

Philippe and Masae [2]

PHASE A

M: What, where do you live in Switzerland?

P: Er I live in the German-speaking part of Switzerland in a town called Lucerne.

M: It's big city?

P: Yeah, it's quite big, it's about er sixty thousand habitants.

M: Mm do you like your city?

P: Yeah, it's very nice. It's located at a lake - a very famous lake in Switzerland I don't know if you know it, it's er La-it's called Lake Lucerne in English (actually.)

M: Lake Lucerne?

P: Yeah.

M: I don't know [laughs]

P: You never heard of it?

M: No.

P: It's quite famous.

M: Mm. And what do you do in your country?

P: Well I work for a bank, but I work in Zurich at the moment er I'm working at the stock exchange

M: But

-P: or I used to work at stock exchange before I came here.

M: You want /w nt/ work in England, don't you?

P: Pardon?

M: You want work in England?

P: No, but at the moment I'm thinking about working in er London, but it's quite difficult to get a job here because

M: Ah

-P: er the bank I work, the bank I work with er has got a branch in London but erm (you know the) unemployment in London, so it's quite difficult.

M: Ah and what are your hobbies?

P: Erm I do mainly sports especially football. In addition I do skiing, swimming and play squash as well.

M: Mm. I've heard you are intr-instructor ski

P: Yeah, in wi-in in winter I work er at the weekends I work as a ski instructor, but just about five or six weekends

M: Oh is it like part-time job?

P: Yeah it's something like that, but er my er real employer doesn't emp-know anything about it so it's more or less illegal [laughs]

M: [laughs] But you don't have to, you you shouldn't work, you should have part-time job?

P: No it's not all-in Switzerland it's not allowed to have er two jobs

M: Aah.

P: because er as when you have one full-time job it's not to-it's not allowed to have a part-time job.

M: Mm mm.

P: Where are you from?

M: I'm from Japan, from Tokyo [laughs] no actually from Yokohama, which is ... next to Tokyo.

P: And so what do you do there?

M: I am a university student and I study about art history.

P: I see. How long have you been studying?

M: About art history?

P: Yeah.

M: I've been studying it for three years and I have to go to university two more years

after I return to Japan.

P: After (what)?

M: I return to Japan from England.

P: I see. And what are you doing in Japan then?

M: In university - I have to go to university again.

P: Yeah? For how long?

M: Two more years.

P: Yeah, and then you'll be a doctor.

M: No, no no no no [laughing] I haven't decided yet what I'm going to do. Mm maybe I will work at my father's shop, because my father has a shop in Japan, in Tokyo.

P: What sort of shop?

M: Antique jewellery.

P: Oh, that's nice.

M: My graduation thesis is about antique jewellery

P: Ah

M: So I can use the knowledge for the job.

P: It's interesting. What are your hobbies?

M: Hobbies? Ah my hobbies watching sport and

P: Just watching?

M: Just watching [laughs] and, dancing classic ballet mm reading and watching plays in a small theatre.

P: Which sports do you prefer to watch?

M: Football, baseball, volleyball xx

P: but football isn't a very famous sport in your country, is it?

M: Ah it used to be not popular but now it's getting popular. Much popular.

P: Yeah?

M: Mm.

PHASE B

M: Mm there are a lot of cars around the hotel and the cars, some cars are f-covered with snow, and I can see three red /led/ cars in front of the hotel

P: Pardon, three?

M: Three red /led/ cars in front of hotels. And there are some people who are going to skiing I think. And its quite shi-mm it's very sh-sun the sun is shining very brightly ... and I can see the mark, 'P' mark on the wall of the first floor of the hotel [laughs]

P: Ah yeah ... Do you see the sky on the picture?

M: Yes, yes.

P: Okay, then I know which one it is [identifies the picture to M]

M: Yeah, yes xx.

P: I didn't understand the the let cars. What do you mean with this?

M: Let cars? Three red cars.

P: Ah red.

M: Red

P: Now I understand. I understood car to hire, to let. Ah red, yeah I see.

P: Well, erm, my picture shows er er part, I think it's a part of the living room. It's quite a small living room, er in the middle of the room there's a small table on the floor, on the table there are some flowers and newspaper. Er, table is surrounded by chairs

M: Sorry?

P: The er the table is surrounded, around the table are chairs, two small chairs

M: Ah chairs, yes.

-P: and one big chair. Erm the right hand side of the picture I see another table, a round table with er with a lamp on it. Behind the picture I see a ... it's a kind of

cupboard. On the cupboard there are some flowers, green flowers, also some fruits.
 Er, on the w-on the wall there are pi-three pictures, two small one and a bigger ones
 and er ...yeah I think that's all.

M: How many how many lights are there in your pictures ... in your picture?

P: There's just one.

M: Just one.

P: Yes.

M: Mm.

PHASE C

M: Very difficult.

P: Yes, it's not easy, but I I think I I'dlike number eleven very much because you
 see the child on it er who is more or less happy but er you see happiness on it but
 at the same you see also yeah that they're not very rich they're poor and they don't
 have many things to live and er yeah it that would be the great picture for the cover
 for magazine.

M: Mm yeah I agree with you actually 'cause the front picture is very important
 to sell it so it must be give us-to show us very good impression like I like the his or
 her smiling and, but also it shows bit poor and not (happy enough)

P: yeah and number ten would be very
 nice as well

M: Mm.

P: But I think the number eleven expresses more the contrast between poverty and
 happiness.

M: There is, ten it looks much more sad /sæt/, much sadder /sætə/ than eleven.

P: Much more?

M: Sad? Sadder

P: Sad, sad.

M: More sad. So ... you know, I think for me two is also good f-

P: No, I don't like number two

M: No?

P: No.

M: Why not?

P: Because this picture doesn't say anything to me and

M: about third world?

P: Yeah ...

M: Mm xx the others. I don't want to choose a pictures who show old people

P: Why not?

M: Why not? [laughs]

P: [laughs] You don't like old people?

M: No n-yes I like but I mean children is better

P: Yeah, it attract-it attracts more readers I think.

M: Mm... mm.

Stephanie and Reto [2]

PHASE A

S: Erm, so where do you come from?

R: I come from Switzerland

S: Which part?

R: Er central Switzerland.

S: Uh huh.

- R: I live in a quite a small village near Lucerne and er on the lake of Lucerne
 S: Uh huh
 -R: as well, a very nice area
 S: Yes, it is.
 R: Erm I have a beautiful view to the Alps
 S: Uh huh
 R: And yeah, I like it there very much.
 S: That's lucky [laughs]
 R: And where do you come from?
 S: Erm, I come from Bienne, it's in the middle of the French and German part xx
 R: Bilingual?
 S: It's a bilingual city, yes, and I live near the lake in the centre so it's very useful, erm I work for an insurance company, so I I use used to speak French, German, also Italian and erm ... that's it. [laughs]
 R: [laughs] Yeah, okay, my work is er, I'm a banker, I'm working for UBS in Zurich at the stock exchange, er I'm changing my er departments quite frequently because I'm a trainee and I have to see every kind of trading, for example share trading or bond trading or warrants trading and so on. That means that I change the departments every half a year, and now I'm, this stage here is erm to learn my English.
 S: Uh huh. And you need English a lot? [very quietly]
 R: Pardon?
 S: You need English a lot?
 R: Yeah, I need English a lot because the most of the turnover in our business er goes either over er over London brokers or Japan or and so on and then we we have to speak English, there is no other way.
 S: Mm, that's good.
 R: Yeah.

PHASE B

- S: Okay. There is a chalet erm ... in ... erm and around this chalet you have a lot of cars. Erm the chalet's white, you have three balcony er and behind the chalet you can see a mountain, two mountain ... erm you have three or four people in front of the chalet erm ... you have, ah, on the right of the the chalet you have a hotel
 R: Mm
 -S: and ... behind the chalet you have another one, another chalet, a little one, erm ...
 R: In front of the chalet there are a lot of cars and they're in there are two red ones
 S: Yes Yes
 R: in this and er most of the cars are covered with snow
 S: Yes.
 R: Okay, I know.
- R: Okay, my picture shows a living room er ... at the front wall there are hanging, hanging er three pictures and the picture er show plants or kind of plants, I don't know (how) they're called exactly, and er, there is a a cupboard also at the wall
 S: Uh huh.
 -R: and on this cupboard er is situated er a basket of with er with fr-fruits in it and also plants. And then in the, in the right hand corner there is a small table with a lamp on it,
 S: Uh huh.
 -R: er electric lamp and in the left hand corner there is er er a little er a bigger bigger table
 S: Uh huh.
 -R: than the other one and on this one is a, is a vase with flowers in it and two how do you say, two er, booklets or something like this. And then we have two armchairs

S: Uh huh

-R: and on both side of er of this (of the saloon) table, it's, the table's not very er tall, /tɔ:ld/ or very high and on the right armchairs, the armchair on the right side, it's got a red pillow on it and on the table there is lying a newspaper and flowers

S: Uh huh

-R: who are er, erm, wrapped in a in a in a gift paper, present paper.

S: You have a lamp on on the left of the sofa?

R: When you are sitting on the sofa, then the lamp is on the left hand.

S: Uh huh [laughs]

R: [laughs]

S: Erm ... and on the table do you have two glass of wine?

R: No.

S: An ashtray?

R: Pardon?

S: An ashtray? Ashtray.

R: What's that?

S: Where you put cigarettes.

R: Ah, er no.

S: And ...

PHASE C

R: I think on the front xx on the front page should be a picture who-which only makes p-people to er spend money, to the charity

S: yes

R: and I think er yeah maybe

S: I think a picture with child

R: Yeah, child are always good to

S: Yes.

-R: to trap people spend money

S: Yes. I think, erm, let me see, erm ...

R: I don't know ... but maybe we should er choose a picture who gives the impression that this child needs needs the money or

S: So I think, then that's my, this one, no

R: Yeah it's quite happy

S: Yeah, she's happy er ... Maybe this one.

R: Yeah.

S: He look very sad ... and he has to carry heavier vase

R: Mm, that's right.

S: Too heavy for him, or ...

R: Hm hm.

S: But also this one, even if he's smiling

R: Yeah, that's right ... And maybe this one can show that the that the chari-er charity can really help

S: Uh huh

R: and that the charity can er make a smile on a on a chil /tʃɪl/-on on a child's face.

S: Yes.

R: Yeah I think this one would be

S: a good one.

R: It would be good.

Stefan and Yumiko [2]

PHASE A

Y: What do you what do you normally do in in weekend?

S: Here in England?

Y: Yes.

S: Er

Y: Or in your country.

S: No it's here in England. On Saturdays most of the time I go to London er to spend time in the centre of London to go shopping or to to see a movie and on Sundays usually I stay at home doing my homework, and then at three o'clock in the afternoon is a football game on TV and it's what I'm doing here.

Y: Ah you like football.

S: Yes, it's my favourite sport.

Y: Do you play football?

S: Yes I played in a team back in Switzerland.

Y: Ah, are you a member of a football team?

S: Yes.

Y: (Then, and) what kind of film do you watch, do you see?

S: Er it's /kw/ it's it's a mixture. I like er adventure films and er fiction. (I want to tell you) about fiction, for example, I I watched er 'Alien 3'. 'Lethal Weapon 3' and xx. You can't compare these films it's

Y: Do you do you have some any particular favourite actor or actress?

S: Ah, yes. I would say my favourite actor is Harrison Ford and my favourite actress is Jamie Lee Curtis.

Y: Mm.

S: It's er last, when was it, Thursday, no not, not, last Tuesday we played badminton.

Y: Yes.

S: Do you usually play badminton back in Japan?

Y: Ah no not usually, but I joined mm badminton club when I was a junior high school student for three years

S: So you played for three years badminton?

Y: Ah yes.

S: And how many times a week?

Y: How many times (now er) now (or)

S: No.

Y: I don't play so much.

S: But er three years ago you played twice a week or

Y: Ah, every day

S: Every day

Y: after school about for two hours

S: Uh huh. Now I know why you played that well [laughs]

Y: xx

S: Er. And as far as I know, you want to to become a translator.

Y: Yes.

S: Why?

Y: Mm because mm I like English [laughs]. I I found uh I got interested in the dis-uh the differences between between the structure of Japanese and English, that of English.

S: Uh huh.

Y: And then, I liked English.

S: And you will stay till er next next August I think. Nineteen-ninety three.

Y: Next mm next July uh no July yes

S: And what are your intention to do till then, let's see, the CAE classes will be

- finished in December. What are you into plans for
- Y: Ah
- S: for next year?
- Y: The special courses begins at begins in Ju /dzu:/-in February mm in in the afternoon.
Um I will take art and design course and flower arranging.
- S: What?
- Y: Flower arranging.
- S: Oh flower arranging ... But during the er morning lessons do you
- Y: In class. I will be in
general class.
- S: They would be proficiency class then. Should be.
- Y: Mm ... I don't think I can manage ... I, I can do well in the proficiency class.
- S: It's no difference between the CAE class and the proficiency class. Look at Paolo,
he's he's going for the proficiency but he's in your class too ... so you will do sh-
I'm sure you would do well in a proficiency class if there is one. That's the other
question.
- Y: I hope so.

PHASE B

- S: Okay, it's a it's a four storey house with two large balconies and one small balcon.
this the small balcon is on top-is the highest one,
- Y: Small what?
- S: Balcon.
- Y: Balcon?
- S: I think it's the right word. And in front of the house are is a is a yes it's a road, and
on this road is a a lorry. And and in front of the house too there are is a parking a
small parking space with, let's say one, two, three, four, five, six, seven, eight
parked cars and most of the cars are covered with snow. And on the left side of the
house there are there are four or five parked cars. Four are cov-five are covered with
snow, and one is, a red car is not covered with snow. In the back of the hou-of the
house you can see, on the right side of the back of the house is you can see a
mountain with er covered with with trees and snow of course. And there are f-few
houses behind this main house I described to you.
- Y: Can you see some some people mm in your picture?
- S: Yeah, I can see four pictu-er four people in in my picture
- Y: And what
- S: I think there these are two three adults and one one child ... They are standing
on the right side of the picture, right hand side.
- Y: There is ah three sofas and one is for three for three persons and other and the rest
are for one person. And two cushions on the longer, cushion and one, cushion is on
the right hand side of the sofa and ... and about the (middle), orange xx is on the
table.
- S: What is on the table?
- Y: Ah, between mm between the sofa for one people-one person, and also um
newspapers on the table, square or rectangle (I don't know) and the table is made of
wood and glass.Mm ... mm ah a f-a fruit basket on the cup-cup-cupboard and in the
fruit basket I can see pine-pineapple, and ... grape ... fruit? No, grape and maybe
peach, and er there are three pictures on the wall. Mm on the picture I can see mm I
don't know the name but all are of flowers. Mm ...
- S: You mentioned newspapers and a basket full of fruits is on the table-are on the table.
- Y: Ah, mm not xx
- S: What else is on the table?
- Y: Basket, fruit basket is on top cupboard.
- S: Aha. But on the table in front of these chairs is
- Y: Yes mm

S: is there something else on it?
 Y: Yes ah a pair of scissors, Newspaper and flower and scissors.
 S: And are there any flowers in in the room?
 Y: Mm, on the right ... on the right corner on the left corner.
 S: Uh huh. Is there another table in the room?
 Y: Yes. Ah the left, left corner. in the left corner.
 S: The left?
 Y: Mm.
 S: And er how many lamps are in your buil-er in your picture?
 Y: Lamps?
 S: Yeah.
 Y: xx (no lamps).
 S: No lamps?

PHASE C

S: Which one will you choose?
 Y: Ah I like eleven picture.
 S: Number eleven.
 Y: Mm ... this
 S: and why?
 -Y: this one is very charming and mm mm she, I thought she stands for opening the year.
 S: Uh huh. It's, I don't agree with you. It's she she looks to me-she looks too happy to me. It should be the cover of a charity calendar and ... it's er like it's she's too happy [laughs]. It doesn't please me. I would go for number three.
 Y: Three.
 S: There's er it's a child too and she doesn't look that happy and she's-she has to work and gives the impression that she even if she's a child she has to work and ... Yeah, it's ... but there are other ones. Maybe number two is is quite good too. It's ... to use children as the cover is not the baddest idea I think. Do you see something else?
 Y: Mm, do do you want to buy a picture which is ... which which gives us sad feelings?
 S: Yeah, it I think that's the-it should give you a sad feeling that you er give donations to this charity fund and so, if you see all of these people are all happy down there er you won't give er 'they're happy, why should I give money to them?'
 Y: But I don't like hanging sad pictures on the wall. Do you like?
 S: Yeah, yeah it's a good point ... But it should remind you that these people they have they have to work harder than you to to survive.
 Y: Mm.

Reto and Stephanie [3]

PRE-INTERVIEW CHAT

R: So what have you done yesterday-what did you do yesterday?

S: Yesterday. I watched TV, nothing special xx then I prepare my bedroom. My boyfriend, not by boyfriend, my brother and my girlfriend will arrive this afternoon from Switzerland.

R: Ah, you will go and pick them up?

S: Yes xx

[The rest was too quiet to hear]

PHASE B

R: Erm, okay, basically there is a person, I think it's a she and she's very happy, because she's smiling and er she's sh-she shows her teeth.

S: [laughs]

R: And er, she she wears a a hat on her head

S: Hat?

R: Yeah, and her hairs are quite long and they go over her shoulder, shoulder. And her right hand is on her head and she she ... erm she holds her hat with hi-with her right hand. And her left hand is at her neck. It means one hand is on her head and the other hand is at her neck ... to to hold her hat. There are some some hair who which are which are in her face. Sh-but just just to her eyes.

S: Both?

R: Yeah, some more hairs which come down ... and on her, on her, left arm she she wears a a watch, it's a pop watch xx ... yeah, she wears a a rain jacket ...

PHASE C

R: I think what this picture er wants to show is er big difference between er erm er nuclear power stations and the problems we have with our erm nature, like er the greenhouse effect and so on. But the fact is that the nuclear power station doesn't erm doesn't produce thish-this this kind of pollution who-er which produce the greenhouse effect. You know what I mean?

S: Not-no not very well.

R: Er, I mean er nuclear power station. If they are running they are er (backed by the government) and then this is just er (waste) who comes-which comes out of these t-these erm towers. And it's a, it's a, it's a proper way to produce power. There are other ways if you if you burn coal or oil and so on. That's produces this this kind of erm of of stuff whose-which is danger-dangerous for our er atmosphere and for our er

S: So you think that from this picture isn't dangerous.

R: It is not dangerous now, yeah,

S: Uh huh.

-R: but nuclear power station they can be very very danger-dangerous and er ... it is a proper way to produce power

S: Yes

-R: right now, but er, they even don't know yet what they are going to do with this er with this nuclear rubbish who who exist of the of the ten or twenty years that they they have got er a a, a lot of this nuclear rubbish where they have to yeah put away somewhere, but but they don't know yet where yet.

S: Uh huh. So we need it at the moment.

R: Yeah, I think.

S: But don't you think that ... this vapour, pollute vapour, can affect our health?

- R: No, that's that's er that's the just va-vapour from water and er it's that's just the clouds in the sky, that's nothing else in that ... The danger is is smokeless vapour who comes out of these towers, it's the it's after after ten or twenty years when such a power station breaks down. The comes the problem because er xx
- S: Like what happened in Chernobyl or some
- R: Radioactive
- S: Yeah (radioactive.)

Stefan and Yumiko [3]

PRE-INTERVIEW CHAT

- S: You know this this this weekend is is Halloween, Halloween you know it? It's er American habit. What are you going to do?
- Y: Ah b-erm we mm d-we don't have Halloween.
- S: But er tonight is a party at Angloschool at half-past seven
- Y: Ah here?
- S: Yeah, in building 'B'.
- Y: Oh, when?
- S: Tonight.
- Y: Tonight?
- S: Are you going to take part?
- Y: Ah no no no no no. Oh, I didn't know that. But today ah um I have to stay home.
- S: Why? ... [laughs] You have to?
- Y: (Oh, no) [laughs]
- S: Are you waiting a phone call?
- Y: No, but ah, when, when (does it start?) Half-past seven?
- S: Yeah, eight o'clock, I'm not sure.
- T: Eight, oh eight, ah
- S: But you have to wear a fancy clotheses and er a mask.
- Y: Really?
- S: Yeah. Yeah, it's
- Y: how do you know that?
- S: It was erm written in the the other building, downstairs was a was a a poster and there it was written you should wear a fancy clotheses, if not then you can't enter.
- Y: Are you joking?
- S: No, that's that's Halloween, that's tradition.
- Y: Oh.
- S: But I don't know if-whether I want to go or not.
- Y: Ah, what about the (but), I don't have any fancy clothes. [laughs]
- S: [laughs] You'll have to ask your landlady. Maybe she has has got fancy clothes.
- S: And what about the weekend, what are you doing?
- Y: Ah, I'm going to see Japanese animation films again.
- S: A Japanese film?
- Y: Mm yes, but mm it it's dubbed in English so I think it's good for my English.
- S: Where can you see Japanese films in London?
- Y: In The Mall. Do you know The Mall, near Charing Cross Station?
- S: No, I don't know.
- Y: ICA cinema.
- S: Never heard of it (nothing.)

PHASE B

S: Er the right side of my page is a a picture full of colours. There are trees, flowers, even birds and everybody seems to be happy. And, on the left side this picture is a picture of a traffic jam. Every-everybody's wearing grey clotheses and the air is full of of pollution. The the atmosphere is quite aggressive. There are some fights and nobody is quite happy and, I think on on the right side tells us that if you use the public transport system, then you can save a lot of time and arrive at your er place safe without troubles, without traffic jam, the-it will be enough space on the streets for for trees and flowers and er you wouldn't be that aggressive in the morning. But if you use your own car in the morning, if everybody does like this, you will get stucked in a traffic jam and you will lose a lot of time.

Y: Ah yes, I agree xx ...

Y: Ah she is wearing a ho-hat and um she she holds holds her head with her arms and hands.

S: Both?

Y: Yes. But mm his-her her left hand is mm beside her ear, left ear ... [laughs] and her her right arm round her head ...

S: Okay?

Y: Mm. And um ah so on her left wrist she is wearing watch ... and she is wearing a ring on her fifth finger the left left hand.

S: Left hand?

Y: Yes. And ah h-her hair is about mm chest chest long

S: How long?

Y: Up to her chest. And her hai-her front hair is up to her eye-eyes ... And she's wearing bracelet on her right hand um arm, (on her) arm, and she's wearing

S: Yes, bracelet on the right.

Y: Yes.

S: Uh huh?

Y: And she's got a necklace ... the head the head of necklace is flower shape ... and (it) six petals [laughs]. Necklace-the necklace head is flower shape.

S: I don't know what necklace is so I

Y: Ah mm necklace is a kind of accessory which mm which woman usually hang from their

S: wear around their sr-their throat?

Y: Mm.

S: Okay.

Y: And sh-she is wearing I think it's raincoat

S: Does she have any pockets (on)?

Y: Ah, yes, she has on the left mm no, left I can see zipper /dʒiˈpəː/ ... and ah, yeah, what else? ... mm, ah she is smiling.

S: Okay.

Y: Mm ...

S: Is she wearing a jacket or

Y: Ja-mm-jacket

-S: or does she, does she (wearing a) trousers or a skirt or

Y: Um, no, she just ...

PHASE C

Y: She's holding a book entitled with *The Climate Crisis*, so this is about air pollution and it cause the acid rain or

S: Uh huh

-Y: mm destroying forest ... because of the xx in the air, I think ... And mm behind her mm what is?

S: It's a nuclear power station,

Y: Nuclear power station?

S: Uh huh.

Y: Ah. Mm, yeah.

S: I have xx (read another) opinion about that. I think it's the the nuclear power, the electricity of nuclear power station will be the main source of electricity in the future and this child will grow up with the help of these nuclear power stations, but it's quite dangerous if something if an accident happens every-everything will be destroyed on earth.

Y: Mm.

S: And it's quite unhealthy about the radioactivity and I think the-that the guy who took this picture wanted to express something like that, that ... the danger of it that you you grew up th-thanks to these power stations, but if something happens you ... I think you'll be destroyed.

Y: But, but does nuclear power station cause ... change of climate?

S: No, but er, for example if you're in in in England, I heard a news story that there aren't er the the nuclear power station here in England. Er a lot of people are su-are suffering from cancer.

Y: Oh.

S: It's because of the radioactivity. Nobody told them that radioactivity came out of the stations.

Y: Ah yes, I know of a little about nuclear power station ... But I think this photograph is about mm the pollution of air.

S: Uh huh.

Y: xx um gas from car or factory ...

S: Mm, it's not easy for children to grow up in a in a world like we have today, it's the the air is full of pollution, it's true and

Y: ah y-ah

-S: and the climate crisis, j-not just only the pollution, it's the greenhouse effect and the ozone layer, there are a lot of things that can endanger the future of this child. But if you would have to take a picture, what would you choose?

Y: Mm

S: To to express the same meaning.

Y: Mm, I would take ...

S: Or think of an animal or

Y: Mm animal or damage to forest.

S: Uh huh.

Y: Or ... mm polluted ocean.

S: And there was a nice, er not a nice, but horrible picture in the newspaper that, with a bird in the sea, and the sea was full of oil, and er the this bird was going to die, and

...

Masae and Philippe [3]

PRE-INTERVIEW CHAT

M: What did you do last night?

P: Um what did I do last night? Stayed at home or (something) Well, first I watched TV and afterwards I went for a walk with the children and er with the dogs.

M: Mm

P: And er after walking we we played games, I played with the children and er

M: What kind of game? Cards?

P: Hah? No, it's a

M: Board game.

P: Yeah, it's something like a board game, but I've never seen it before and I don't remember the name either.

M: Mm

P: Yeah, but it was fun, and we played until one o'clock

M: One o'clock!

P: Yeah.

M: How old the children?

P: Between eleven and fourteen.

M: Mm ... there was a Spanish girl

P: Yeah

-M: who lives in the same house as you

P: as erm lives in lives at the same place, but er I think she wasn't in last night, I didn't see her (as if) she's always in her room and

M: She isn't?

P: No, she is always in her room, she's she's rarely in with the family, I'm quite often together with the family, play with the children or go for a walk with the dogs.

M: Ah, it sounds good.

P: Yeah, yeah, it's funny,

M: I thought you were-always went out .

P: No, it's not true, no, er on weekdays I but no I go out two or three n-maximum three nights, but erm most of the time I stay at home.

M: And when you go out, with who do you go out with, Reto?

P: Mm, sometimes, yeah, but I've got some good friends in London and er I'm often together with them, but at, on weekends er Reto's is coming with me the most, most of the time.

M: Mm, are they English?

P: Are? Mmm yes, some of them, but er the one I'm together most is a Spanish girl.

M: Mm. I want to have na-native English speaker's friend, but it's difficult to find if I come

P: Yeah, we had, we met so-some Irish girls, those from Manchester and we were quite often together with them, but now they are studying so, yeah, I think it would be an advantage to to be together with native English speakers, but er

M: Mm

PHASE B

M: First difference is the right hand side is colourful and the other is very dark, only blue and, I don't know what the, skin's colour. And the other is mm there's two buses and the other is very crowded, all-I can't see the road. It's covered with cars and people and mm ... and the purpose is for me it's tells about the city and London, because of two buses and ... and the especially the bus is I don't know the name, not first floor with second floor, in Japan there's only first floor bus so ...

P: Yeah, I agree, also I think er the purpose of the picture is er the left er the left pi-left-hand picture shows the London at the mo-at the moment and the the right-hand picture shows how it's it should be, how they want to create a new London with more colour and er not so crowded and er more happy people.

M: Mm.

P: Well, my picture shows a y-a young girl, I think she's between twenty and twenty-four. I just see the er her head, her hands and er up, I don't see her legs, but j-just above her don't know, above her stomach. Er sh-her hands are behind her head, or the left hand is b-is at the neck and the right hand is at the b-behind the the head. The girl is smiling, she wears a hat, or she's wearing a hat /hət/ and what else can I say? She's got long hairs, blonde hairs, doesn't matter [laughs], and she's wearing a a watch on her left hand. Got any questions?

M: You can't see s-her legs?

P: No, it's just er er upwards from her belt.
 M: Mm, mm, and her her right hand is
 P: Her right hand
 M: behind her head
 P: is behind the head, yeah, and the left hand is also behind the head, but at the n-er at the neck.
 M: But you can see the watch?
 P: Yeah, on the left hand, and she wears a a ri-a rain jacket as well, a blue one.
 M: And long hair, (and) smiling
 P: Yeah.
 -M: and t-twelve and twelve years old.
 P: How much?
 M: Twelve years old.
 P: No no, between twenty and twenty twenty-two.
 M: Ah.
 P: There may be a little bit younger, but it's difficult to to say.
 M: Okay, I I did my best [laughs]
 P: Ah, that's not bad. But you mixed up the hands. B-
 M: Ah what did you mean?
 P: The the left hand, or did I say it wrong?
 M: Ah.
 P: Yeah, but it doesn't matter, yeah it's nice.

PHASE C

P: Well
 M: Mm it's d-climate crisis, mm
 P: I think the the aim of the person who took this photograph wanted to to express the the contrast yeah between the cli-er the girl is reading a book about climate crisis and in the background we see a a nuclear pow-a nuclear power station, and er
 M: Er
 P: What do you think?
 M: Yeah I think so and behind the girl there is four towers which produce looks like very dirty air mm which makes pollution and also always children gives children give us the impression of peaceful and mm so it's it's makes contrast.
 P: Mm, that's right it does (and that's the other) the greenhouse effect it also (directs) the the the young girl who wants to know something, but in the background we see the the result of of the generation before her.
 M: Mm, and also she's looking at the sky.
 P: And she looks quite worried
 M: Yeah.
 -P: about everything.
 M: Mm.
 P: And what sort of picture would you take if you'd take part in a competition like this?
 M: Um, if I would take part in the competition I'd take the bird /ba:d/
 P: You'd take?
 M: A bird in the xx in the dirty dirty oily xx sea, I don't know the name in English
 P: Ah, yeah.
 -M: but it's like-it's used also for Benetton's
 P: Yeah, I have seen, that's right, xx oil.
 M: Mm. Or, yeah, and also I'm going to use I want to use childrens for mm especially poor-from poor countries ... and you?
 P: Oh, I don't know, I like this picture very much, it's (I think) it's very impressive but er I I wouldn't have a better idea, I think this one is just great,
 M: Mm.

Stefan and Yumiko [4]

PHASE B

Y: The first picture which I should maybe it is the easiest to explain because I can see seven seven animals in front of the picture and erm there are many many houses and the roo-the colour colour of the roofs are red-brown and blue and grey. And in the middle of the picture the-there stands ah white building and the the top of the building is like Indian architecture (I don't know) and mm ... the atmosphere it seems like ... it seems like mm I can't say anything ... mm not a city but small town ... Second picture, in front mm in the middle of the picture there also stands (high) building white, white building, and mm on the left a man /mɑ:n/ is, a man's /mɑ:nz/

S: What?

Y: There is a man standing on the road and very left, on the very left there there stands stand (background) a row of trees, the colour of leaves are yellow and ...

S: The build is quite a large white house, that's could be a church. But is there in front of this church, are there many trees, red small red trees?

Y: Mm yes.

S: Okay. And then there is a camping site er in front of th-in front of the church so yeah it's five and six.

S: I can see pi-er picture is er picture of a kitchen and in this kitchen it's quite a modern one. The colour of of the furniture is is white. On the

Y: /w/ [indicates non-comprehension]

S: The colour of everything is white. And in the background I can see a window. It's er the sun is shining it's very bright. There are some er cups, teacups, coffee cups and plates er are on the on the table there, it's er near the wardr-cup-I'm not sure. And the the colour of these dishes and er are is is a yellow. Then in the window itself is is a vase /weɪz/ with er flowers, and these flowers have the colour er the colour of these flowers is yellow too. Then above the the window are three flowerpots, three white pots and the colour of these flowers is green. Er, that was the background, and now what I can see first on on the right side of my picture is a chair, a very modern one, very new design. And then there is a cupboard with wine glasses in the middle, on the left side are some cups and and some pots with I think salt, sugar and something like that. And the right side are some plates and cups as well. Then there is a a three small cupboards and it's not on the ceiling but above. There is erm, in the middle is a ... is a plate, like a plate, there are some things on this plate and there is a part with oranges er a pan, and the colour of this pan is orange, it's in the middle, and there are four knives erm the back of this furniture, four knives, one is for bread, one is for meat, one is, I don't know, to cut something, four large knives. And this furniture has, on the left side of this furniture just this one piece is, er it has four drawers.

Y: (You said) there one plate in the middle of the cupboard? In the middle, inside the cupboard, and above the middle in the plate, mm orange juice, orange juice?

S: Yes, orange juice on the this plate, it's er it's not full this er can, it's not full it's just half

Y: Where is it?

S: On the left side.

Y: Where? On the left side of

S: Of this furniture.

Y: Furniture?

S: Yes, it's er, the whole thing is a a large cupboard but it's er not in the background, it's a little bit in in front of the pi-er in the front of the picture. First I was describing the background with the with the of the of the window and some xx tap, water tap and the the other furniture is a large cupboard at the front of the picture. It's, you have to imagine the space, there is, it's not on the same er level. There are three er s-small cupboards on this (I don't know these) xx. And in-the one in the

middle is full of wine glasses. The one on the left side has er three shelves. On the one in the middle are some cups, tea or coffee cups. The one above has three large cans with I think sugar and flour or I don't know, and the one below has brown dishes, two cups and a can.

PHASE C

S: What's your first idea?

Y: Ed-Edinburgh.

S: You'd like to go to Edinburgh?

Y: Um, yes. I've been to Edinburgh once and I liked it very much because in Edinburgh I f-I felt as if (I was in) xx.

S: In xx.

Y: Yes, very tasteful.

S: But the weather is even worse there than here

Y: What?

S: The weather is even worse than than England.

Y: Ah yes, mm but but xx problem but

S: I have never been there, it's

Y: xx xx

S: Uh huh ... My first choice would be er New York.

Y: Why?

S: Yeah it's t-it's ... I would like to to live in this city, for just for one year okay, not for for longer but one year I'd like to do it. I spent one week there and I enjoyed it very much. It's it's a big jungle but it's er a lot of there is a, er a very good atmosphere in this town and, in this city. I would like to work there and maybe later on I will have the possibility to (go there.)

Y: xx New York is dangerous.

S: It it depends wh-where where are you living. It depends on the district. Uh, I wouldn't I wouldn't like to stay there for five, six, seven or for my years or for whole life, but just for one year. But Edinburgh, is there, do they have something interesting there?

Y: Uh xx

S: It wouldn't be boring to to to spend one year in Edinburgh?

Y: No (I don't think so) Because of ... I like building made of made of stone and the castle, Edinburgh Castle is very beautiful. Even if I don't um I'm not a photographer, but I can take a picture like mm not so good xx postcard because the castle is-because of the castle.

S: Uh huh. Yeah, Scot-Scotland is a very nice country. I would like to spend a few weeks there just huh for holidays, but not one year, it's er I think I wouldn't agree with you about Edinburgh ... Have you ever been to Hong Kong? Or Singapore? It's quite near to Japan.

Y: I've been to S-Singapore.

S: You didn't like it?

Y: No. I I didn't like it ...

S: Okay, first choice would be Edinburgh. The second choice?

Y: ... Um Venice.

S: Uh huh ... We we have a little problem here. My second choice would be Hong Kong.

Reto and Stephanie [4]

PHASE B

R: Okay, the first picture I've choosen there is a church in the middle of the picture and it is set somewhere in the Alps I suppose erm, on the right, the right-the left-hand corner, bottom corner there is a wooden cottage and I think it is in the autumn because trees er trees are changing their colour. And it's er it's a nice small village somewhere in a in a valley in the Alps ... Uh, the other one is, I think you you look down from a from a mountain or a hill and in the background you have got a mountain chain with er snow on it. And in the middle of the picture there is a there is a band of er trees and in the front of the picture there are buildings, most of them are wooden buildings, it's also a village somewhere in the Alps. And, in front of the picture in the middle there is also a wooden cottage.

S: Erm, it's a kitchen, a white kitchen, I think it's quite modern. Erm few furnitures are of orange and ... there is a seat on the right and ... on the top of the the window you have three three vases with grass and also under the window there is a vase with some flowers. There are s-four knives hanging on on the wall. There are some orange ... there is an orange kettle and ... No, there is a-the window is on the left of the picture. The floor is black, grey-black and erm ... there is a bottle of fresh orange juice ...

R: Is there somewhere a chair?

S: Yeah, on the right.

R: I think I've got enough.

PHASE C

S: Which city would you choose to live in?

R: I think either Hong Kong or Singapore.

S: Why?

R: xx (but I can't decide now for which one.) Er the reason is er why because I've I have never been in the Far East and I would like to go there. I heard from friends who were there that the Far East must be erm very nice and lovely and er friendly people there.

S: I would choose Venice in Italy or New York. They are completely different, erm Venice is quiet, it's a quiet city, romantic, the atmosphere is very hot, Italian people are very friendly, very familiar, and New York because it's a big big city and erm I've never been there. I would like to visit erm galleries ... I'd like to work-er (to have to) find a work in the marketing or publicity or typing.

R: Yeah, it depends for my work the best place I think would be er the Far East, Hong Kong because it's also a financial metropole and er and I think UBS has a branch there as well, and so I could work there and, but for for a holiday maybe I would choose Sing-er Singapore because it's it has got a nice culture and you can visit such a lot of thing

S: Yes

-R: that, yeah ... you would never feel bored there I think.

S: Uh huh. And erm, in Venice if I have to choose erm a job I would be a guide.

R: Tourist guide?

S: Yes, tourist guide and erm, yeah, with three languages I think it's er, a good idea.

Masae and Philippe [4]

PHASE B

P: My picture, I have erm I see a I can see a church in the middle of the picture. I also see the the sky, it's blue sky and er ... the bottom of the picture there er bottom right-hand I see a wooden cot-a small wooden cottage and I think there's also er must be a cyclist on a small way, but it's er I don't see him very well, it's a small cyclist. And er in front of the church I see some trees and ... I think that's all.

In this picture I see also some er old houses and er in the background mountains with er snow. I just see a small piece of the sky and er most er houses or cottages are at the bottom of the picture, and in the middle between the mountains and the houses er are are (wood) xx it's a forest, a small forest.

M: Um, the first picture, is the church s-quite small in the picture, in this picture?

P: Yeah, it's not very big,

M: Not very big.

P: there are a lot of pictures on which er the church is bigger.

M: Mm. And second picture the the bottom of the bottom of picture there's mm grey /gleɪ/ house.

P: [looks puzzled]

M: grey and small house, it's very s-old?

P: Yeah, there's a grey house, yeah.

M: Mm, okay.

M: Mm, this is obviously kitchen, kitchen and erm left left er upper corner there is three plant and it seems to me the the colour of this picture is constructed by white colour and orange colour. And so in the middle there is four knives and in the on the corner there is a lot of apples in a bowl, and the other side there is orange juice. And there is one chair. Mm, in the farther I can see the water basin and the window there is-in the window there is not curtain /kə:rtən/, (it) blind. And in front of the window there is flower, and two cups ... Mm ... in the shelf there is a lot of glasses, cups, pot, what's, maybe salt and sugar I guess, I'm not sure. Mm ... Ca-I can see a machine for, I think for making orange juice or something xx.

P: I'm not sure if I understood it the right way the the window, there's no there are no curtains?

M: No.

P: Okay.

PHASE C

M: Where do you want live, one here?

P: One here, I would fancy to live in er New York because er there's always something on there, it's a big town, it's never boring [laughs] xx. The drawback would be these er tall buildings, because er I think if you stay there too long it will be a little bit depressing,

M: Mm.

-P: but er I would like to live there, would you?

M: Mm, for me maybe Hong Kong or Singapore because I've been to Europe quite a lot of times but I've never been to Asian country, even I live in Japan.

P: Er you've never been to Hong Kong or Singapore then?

M: No, China, Korea, I've never been there, so I want I want now another Asian countries, I think it's good chance, if I can stay long there. But you don't like? I think Eur-no New York is quite dangerous.

P: Yeah, it is, yeah but also London is supposed to be dangerous xxx

M: I don't (agree with you).

P: Yeah I think so, I've but I've never made a bad experience.

M: Mm, I don't (know about bad) experience in London, but New York I h-I heard one Japanese student was killed in Halloween.

P: Yeah? Yeah, but it's everywhere dangerous. You have to be careful anyway. But for you it's quite er close to go to Hong Kong, Singapore.

M: Yeah, j-just I didn't I haven't had an opportunity to visit because you know my parents often come to London

P: So

-M: so Hong Kong is nearer, but for me it's further than Europe. [laughs]

P: Yeah [laughs] I see.

Philippe and Stefan [5: Baseline data]

PHASE B

P: Well, the picture shows a man he's about in his thirties, er in this picture he's very excited because I think he's er he's reporting a horse race or something like that, okay, I describe him now. Erm he's he's got er o-oval face, he's wearing glasses ... he's got er

S: Just what's the shape, what can you see, just the the

P: oval ... and er he's wearing glasses and er he's wearing a a hat, his hat's it's quite difficult to describe it well but it's not a beret, but it's similar to it ... and er he's got erm long, for a man /kw/-er rather long hair which er come down to his whiskers.

S: Whiskers.

P: His whiskers are er also consist of very long hair and er ... his arms are the same level as his head is because he's very exciting and he-he's very excited and his hands er are are showing the excitement with a wave, I think he's waving or something like that ... His er er hands are both above his his head

S: his hands xx Ah he's cheering

P: Yeah

-S: or something like that.

P: ... And his his mouth is widely opened because he's shouting ... he's wearing a suit and er

S: a tie

P: No, not a tie, but er the other er I don't know what it's called, the other er this thing,

S: xx

P: yeah, right. Swiss-German xx xx ... And er he's got on each finger he's got a ring (it's not characteristic here)

S: On both hands?

P: Yeah ... yeah, that's better (picture) ... and er he sees (with)-his eyes are er widely open as well.

S: And er do you know the shape that his glasses are?

P: They're (rather) like /ðrs/ (shell shapes) ... Yeah, you just see, er you don't see his er his waist (I think it's called), it's just his shoulders you see, the picture's er er until his shou-shoulder, yeah ... okay, that's it.

S: All I can see is one square, it's xx xx first with with two dia-dia-diagonals I guess, this is the word, and now in every every corner of your square is er is another er, the square is xx, yeah, a small square in every corners of your big square is a small one, and the length is about two, two-and-a-half, no three centimetres ...

P: Every, in each one?

S: Yeah xx. So you have four small squares in the big square. Then you have the er a square of the same size in the middle where the two diagonals diagonals crosses each other, you have another square.

P: Erm, how how is it made of, is it er the same?

S: Same size as the other xx xx.

P: Yeah, same size but er is it also in the same (I don't know) xx ... er

S: Yes, you have then

P: Is it it er the lengths are, the lengths are they parallel to the diagonals or parallel to the to the lengths

S: parallel to the length of the big square ... Okay, then you have, if you have drawn this er small one in the middle er the four corners of this small square er hit the diagonals.

P: Yeah.

S: Then from there you draw a line to the middle of the white, the length of the big square, so it gives you er

- P: four
 S: Four
 -P: like arrows.
 S: Yeah. like arrows ... They all have the same size, should have the same size [laughs]
 yeah that's it ... Yes, it's brilliant.

PHASE C

- S: I just can can tell you something about my experience when I drove down to the south of England the first place we always wanted to see was the coast so, we drove down to the coastline and near there most-there were all the harbours were down there, so I-in my opinion the best place would be near the harbour.
 P: Mm, yeah, but I don't agree, because I think er car parks at a coast spoil the coast itself. If I go to a coast, I don't want to see all the cars down the coast so, if I were the engineer or the builder of these car parks, I wouldn't build them at the coast, but er you're er (statement) is right, most most er tourists go straight straight down to the coast and look there for the car parks, that's right.
 S: Yeah Maybe there is a park near the railway station. You need you need one er parking space near the railway station but you could expand, there already existed one
 P: Yeah
 -S: but it would be a little bit er sad because you would have to destroy this this park.
 P: Yes, so maybe here in the forest.
 S: Cut down the forest. [laughs]
 P: Cut down forests to build er car parks ... and I think this this is just one xx car park, we have got to build two of them. I think one of them we agree must be must be near the railway station because erm it also animates people to to er travel more often by by erm train, for long distance travels-for long distance journeys.
 S: I can see the other one here, this this small place in the middle of this, surrounded by roads already, so you wouldn't lose that much if you would create a parking space there, you wouldn't destroy that much, there are no trees, it's just a small green er area.
 P: And it's close to the park as well, I think it would be a good idea to build the other one there. Maybe it's a bit er far away from the from these hotels and restaurants but er I think you can't meet er everybody sometime, his opinions.

Masae and Yumiko [5: Baseline data]

PHASE B

- Y: I can see a man with his mouth widely open and also his eyes are wide um circle. And mm he o-he opens his eyes wide wide widely [laughs] and he is wearing glasses ... and he is wearing hat and he has got whiskers, like, um whiskers xx xx beard beard beard here, whiskers on the cheek.
 M: [laughs] I don't know where, I will ... I will leave that.
 Y: Mm his hands are, he he ... he is rise-raise-he is rising his hands.
 M: Mm? Which hand?
 Y: Ah, both, over over his head ... and he is wearing rings on every every fingers ... He is wearing neck-er ... tie
 M: Tie.
 Y: This one ... and ...
 M: Ah, what kind of glasses - round or square?
 Y: ... eh ... it's not round but square, I think it's like drop, ah raindrop.
 M: Raindrop [laughs]

Y: It's like kind of hat

M: Hat

Y: Hat, (hunting, hunter) xx xx

M: Ah, like this

Y: Yes ... And um ... no, no no, not beard, whiskers,

M: Whiskers

Y: Whiskers on the cheek like like hairs ... Ah, also he is wearing watches on both wrist ... Um, I can see two strings from-hanging from glasses.

M: Two strings hanging?

Y: Until the side of head, what, I don't know what it is xx to hold glasses. If, when you when you take off glasses xx.

M: Ah.

M: Mm inside the square there is ah circle which touches each line, um four (line) ... in outside four line ... and ... in the middle of the circle and square there is small square, but the corner, corners ah touches the cross xx square.

Y: [laughs]

M: And, how can I say that ... just the smaller square than the big one.

Y: Smaller square, than the circle

M: The square which is between the paper ...xx and mm ... in the big-biggest square there is, you can see the cross, ah no no, not cross, mm ... and uh write the straight line in the middle

Y: In the middle.

M: The middle draw ah ... ah, well, you can see the cross in the line, and, okay, triangle, just triang-four triangles, (big-big one), four triangles ... and please divide the triangle into two.

Y: Two.

M: Four triangles.

Y: Ah.

M: Ah, but don't write any in the smaller, s-uh two smaller squares.

Y: Finished.

PHASE C

M: I think xx the car park here, because it-here is the middle, in the Queen's Road, near the Queen's Road. And ah it's near from gallery, market, station and hotels, bus station ... But I don't know, maybe there is private houses (so maybe it's not so good) ... What do you think?...

Y: Ah but I I would put ...

M: Or ... maybe in the park we can build the ca-car park, but I don't want, I don't want destroy the park ...

Y: Or ah ... it's too (difficult) I think [laughs]

M: Or near the beach. I don't think it's big city so maybe um tourist can walk

Y: Mm

-M: everywhere I think.

Y: Mm xx

M: So along the beach we can see xx ... kind of Japan [laughs]

Y: Yes Yes [laughs]

M: ... Where? [laughs] ...

Y: I have no idea but, mm ... I have to build car park maybe around here

-M: Mm

Y: although I want-I don't want to, I don't want to disturb traffic ...but maybe around seaside is the best.

APPENDIX D

Complete transcripts of Replication

Transcript conventions as for Main Study (Appendix C).

F and S

TASK ONE

S: So Francesco, what you are going to do after the Diploma?

F: Okay, I think that in the nearest future er, first of all, erm during this summer I think I will spend two months working in er in Berlin, I don't know exactly in which position should I be, but I think that erm er around administrative, any administrative er position in a building site in in the west side of Berlin.

S: That was the reason why you asked me er to

F: Yeah that's why I ask you for some

-S to look for a course, for German language courses xx

-F: for information yeah because I think that well I will be paid for this for this job, but I don't know exactly if I will have er any kind of accommodation provided by the company or not, so I will ask you, I think next week I will ask you er exactly where-what I need and xx.

S: Okay.

F: Er, what about September, well I think in September I should start working

S: In Italy?

F: Yes in Italy exactly in Milan and erm I get erm a position in a publishing company

S: Uh huh

-F: and er

S: It's it's not a a newspaper publisher?

F: Yeah, yeah, publishing company,

S: Newspaper?

-F: er they issue, they issue erm newspaper, magazine and er books

S: Oh great.

-F: so it's a very big company.

S: and it, is it related to your further educ-to er previous education?

F: I mean my law degree?

S: Yeah.

F: Of course, because erm, erm, the position I get is in the staff department, in person-personnel

S: Uh huh

-F: division

S: Right.

-F: and er I should be dealing with erm trade unions er relations.

S: S-so you won't w-you won't work as a journalist, you

F: No, no, absolutely, I will never xx journalist.

-S: you will work in the the administrations.

F: In administration, absolutely. What about you?

S: Yeah, my plans are already fixed for the rest of the year, because

F: You mean that you fixed it in the in the past or

S: I fixed it in the past because I got only unpaid holiday to do this language course so my first day in the company erm is fixed for the seventh of July. I've only three days to switch from London to my home town again and er, as it is holiday time in Germany I think I will have to er, erm have loads to do because all my colleagues will went in holiday when I just arrive.

F: I remember that you were work in a chemistry company or something

- S: Yes, it's a big chemical company xx in Germany.
 F: And where is erm placed?
 S: It's in xx, it's close to Cologne, it's just it's a small city between erm Dusseldorf and Cologne.
 F: I remember that you you, you told us a strange story about er er your team er your team working, the work you you do in in the team it's a strange situation, you try to do not er er, you try to to do at least minimum a minimum of of work, not too much because there is a team, I remember something, I'm I'm not not sure but
 S: Ah I'm not sure really. It is a little bit strange because sometimes you think you are not an engineer there, you are more or less leader of a kindergarten because erm I'm er, I have to work with with with er workshops together and with the people in the shifts in the nightshifts and so on, and have to cope with their problems as well as with with the technical problems so, it's not just basic engineering it's sometimes more psychological handling of of personal problems and so on, so maybe I I told a little bit about this and and you got this feeling.
 F: Well, maybe I didn't get exactly what you mean, what you meant, because
 S: So in in my I can remember my first week I just tried to install something new in in in the plant and er, all of these people there rejected it immediately because they they won't work with it, and I didn't understand, I wasn't aware of this that you have really to introduce it and you have to present it and er, they must have erm, you you must try that they finally want it.
 F: Yeah. Have you any plan for your career? W-I mean have you
 S: Not really, not really.
 -F: found something about
 S: I'm in the sad position that in Germany there exist a hierarchy of education so if you, erm have the wrong title, if you went to the wrong school, wrong in marks, er you will never get on these career slope, so erm, if I would like to to have a career in Germany I must go back to university and to do the right, not the right degree but to have the right name of school
 F: So Germany has the same very bad manner (as Italy)
 S: Yes, mm, that's the reason why why m-many of my my study colleagues erm went to England, because here you can do easily, or you can you can do if you can, if if you are able to, you can do your M.Sc. or your Ph.D. without this hierarchy, and once you have got your Ph.D. nobody else will ask you where you got it, so it's a short cut more or less.
 F: Yeah. So going abroad is a way to
 S: to avoid this this this very silly system in Germany.
 F: Yes Class system in Germany. Yeah.

TASK TWO

- S: I've got here er a colour picture, I think erm this picture was taken on the backyard of a normal ordinary small house, maybe in Britain. Shows family sitting er around their garden table on on benches and what else.
 F: How many are they?
 S: Erm, I think it's erm it's the parents and three children and the grandma I guess, and erm, it's two boys in the age of around five and the other one maybe nine or ten and a small baby in the arms of the mother.
 F: Mm.
 S: Erm, I guess it's summer time because all they wear erm light clotheses and you can see in the in the back of the photograph you can see there's some er flowers blooming, so erm I guess it's it's summertime. And, maybe they just finish with having erm er having lunch or having some tea because there's one mug /mak/ sitting on the table
 F: There's what?

S: Er, a mug is

F: I don't think I have the same in my picture.

S: So you can't see any difference from what I'm explaining?

F: Yeah, er I'm, yes but when you start talking about the lunchtime

S: Mm

-F: I can't recognise any mm erm any stuffs, any objects any objects that remember me lunch, I mean there are just er one two three four five six people looking at the erm at the cameras

S: Mm.

-F: and, er I can't see anything about

S: No, just it was my imagination that I that I guessed

F: No, maybe the picture is different.

S: ... (Yes the picture's different.) So, what do you miss in my description. What's in your picture?

F: Just this, er, stuff, stuffs a-about er dinner.

S: Mm. What-what's sitting on on the table in your picture?

F: I can't see a table.

S: There's no table at all?

F: No.

S: Alright xx

F: There are just er three-six people looking at at the cameras. In the direction of
S: Alright, alright,
yeah.

-F: the cameras.

S: So on my picture the difference is on my picture is a gardening table with a with a mug and a pot of pot of what else, a plant or something else and

F: What about hand
hand's position?

S: Oh yeah, erm the the father has his his hands er on his legs,

F: Okay it's xx

-S: he's sitting and he has his hands on his legs. The eldest of the two boys has the hands behind his back,

F: Both? Or just one?

S: The the elder one, the el-er

F: (The elbow?)

-S: with the blue teeshirt.

F: Alright. Okay, the blue teeshirt has the hands behind the back, and the other one?

S: has the hands behind the back xx xx The
young one has one hand in his face but

F: Okay, this is another difference then.

S: Uh huh.

F: What about mother with the child?

S: Erm, the mother erm holds-er hugs the child or holds holds this child, child tight and more or less like

F: Is she looking at the camera?

S: Yes, she's looking at the camera and she presents the baby a little bit

F: What about the ch-the child? The child face
the direction?

S: The child fa-all people all people except the grandma faces camera.

F: Okay.

F: Well, erm, I have six faces, okay? And, they are positioned they're placed like in th-erm a watch

S: In a circle?

F: In a circle. Well, but, the position is like er in a watch, you know?

S: Alright, for for twelve, six, (three. Uh huh.)

F: Twelve er, okay ... Well, I can recognise quite easily at least

four faces. I mean that I can tell you what kind of feeling they they have, but there are two faces that I'm not so, clear for me.

S: Right.

F: Let's start with th-erm the first one and I think it's the the easy one. I can see an angry, angry face, angry face. Er, someone that is quite er angry against something and er it looks a little bit er, in a tough position. Erm, geograph-not geographically, erm, geometrically you can see that the the shape of the mouth is like (middle circle),

S: Uh huh, mm.

-F: and erm er, that's the first one. The second one is an happy face.

S: Uh huh.

F: Okay? And erm erm, they are in the opposite er position, one erm opposing the other. The third one it's /sΛ/-someone is sleeping. You can recognise with er, we can recognise it by erm er three zed

S: Alright ... snoring [laughs]

-F: and, er well, he has a very relaxed face er with erm a small mouth and er no, you can, no eyes.

S: Uh huh.

F: Third. The fourth. Well, erm, the fourth face is someone that erm is er inquiring, is asking for something, he's not sure, he's in a a dubious position,

S: Mm. alright.

-F: er a face like er 'what do you mean?', er 'what you said?', something like this.

S: Uh huh.

-F: in a dubious, er dubious face.

S: Uh huh.

F: The last two face, the last face I have er, I think that one is an expression of er erm surprise, when you say 'Oh, really?' with a a very open mouth and erm and, what's more, er with a big s-

S: I can recognise it.

F: Oh can you, okay. Last one, no idea. It looks a Japanese huh, because [laughs] because the eyes

S: [laughs] I know which one you mean [laughs]

F: Okay, and with a very small s-s-with a very small mouth.

S: Maybe he feels pain or something else.

F: I don't know, I don't know. Anyway, that's the last one.

S: Okay.

F: What about you?

S: Okay, I think I have an easy one to explain for you

F: Yes.

-S: for the missing seventh one. It's erm crying face. Tears are running down the the

F: ah, perfect

-S: cheeks and erm

F: Easy (peasy.)

-S: and a very small mouth and er closed eyes, so I think

F: Perfect.

E and W

TASK ONE

E: What are you going to do at at the end of this term?

S: Sorry?

E: What are you going to do after this course?

(S: After this course.

(E: Afer this course?

S: Yes, I'm I haven't not decided yet actually, but er I'm going to enrol (another)

- course, after this course mm I'm going to enrol postgraduate course erm this from this autumn.
- E: Will you, would you take another English course or you think that you finish here in-with this course?
- S: Um, I'm thinking about that, because maybe some er graduate course (maybe) to enter some preessional course or something, so I'm now thinking.
- E: In this school?
- S: I'm not sure, but [laughs]
- E: And, you're not sure.
- S: No xx
- E: Right. Yes. I am I I am going to I'm going to do Master degree (as well)
- S: Yes, I know.
- E: It's begin er September.
- S: September.
- E: Yeah, the end of September, but I have to wait for my my test in English, I hope it's have to be better, I have to be well I hope er to achieve six point five in /at lest/ [IELTS]
- S: Ah, so, six point five.
- E: Six point five. And then after the Master I want to go I don't know somewhere in the world, maybe New York or United State to work to have to (take) experience
- S: Yes.
- E: and then to return to Colombia maybe in nineteen ninety-seven, nineteen ninety-seven, yes I want that, I hope so I can do it.
- S: What do you mean ninety ninety-seven? Is it xx
- E: Nineteen ninety-seven the years that I am going to return to Colombia.
- S: Ah, so you mean er four years later.
- E: No, two years later.
- S: Ah, two years later.
- E: Two years, yes, (I'm going to) be out of Colombia two years.
- S: I see. Two years, yes.
- E: I want to to learn, English like a a mother tongue, [laughs]
- S: I hope so.
- E: I have to work a lot but I think I can do it
- S: Mm, I see.
- E: Yes. And what about your famaly. I didn't I I haven't know, I haven't known your family. How are they?
- S: Ah, I'm now living here with my wife, and my parents is, ah my parents are living in Japan mm
- E: But your your wife is here.
- S: Yes.
- E: Why she didn't come yesterday to (the) party?
- S: [laughs] I asked her to come, but she had another appointment with her friend.
- E: Ah.
- S: Yesterday was her friend last day of her uh course, so maybe sh-they had a party,
- E: Mmm
- S: so she couldn't join us,
- E: Another party.
- S: so it's a pity but er she xx
- E: [laughs]

TASK TWO

- S: Ah this picture is very er, this picture is very happy family and I think there are two par-er parents and three children and one er grandmother I think and, m-er mother is standing in the middle of the picture. She is holding a very small little baby, and beside her um two boys, two boys is standing er one left side and right side, and

erm, in f-front of mother there is er er grandmother is sitting on the bench and um, on the left side, on the right s-right hand of the grandmother er (I think there is a) father and father is sitting on (the some er) very low erm wall, and this picture is in front of the house and they are in their small garden. And er mm, on the on the table which (end) erm their grandmother is sitting there, on this on this er table there is er one pot and, there is one cup and er (xx I can't find out what is that) a yellow object on the table.

E: And I have to say? Okay. In my picture I don't have I don't have table.

S: Mm?

E: I don't have. er /blɪntʃ/, what is the word, did you say some word was er where the

S: Bench

-E: where the the grandmother is sitting? Bench?

S: Bench.

E: I don't have bench. I don't have pot, I don't have table, I don't have gardens and, I think it, it is it's isn't in the front of the house, I think it's in back yard, because a lot of, I don't know if you have some boxes, erm (it seems the) back yard of the house. You have the same? Back yard or front of the house?

S: I think back yard, yeah, back yard.

E: Okay, I have six faces.

S: Mm, Yeah.

E: I start with one,

S: Yeah.

-E: man, is very hang-very angry, very angry angry angry

S: very angry Mm.

-E: with the mouth in the angry direction turned down. One face have er er /sɪtɪs/ [zeds] on the right hand, maybe er he's thinking, thinking, I don't know but. The other is er a man

S: Thinking?

E: Thinking, he have three /setɪs/ in the, in the right, on the right of the face. The other man is, have the have er eye, eyebrow? Eyebrow.

S: Eyebrow.

E: Eyebrow nearly like, like er like suddenly or like afraid, you know?

S: Suddenly?

E: Yes, he, he's ... he's er with a with a eyebrow near.

S: Ah, I see.

E: You know?

S: Yeah, yeah.

E: The other is a happy man, smile.

S: Uh huh.

E: The other is er impressionist man, like a

S: impressionist man?

E: Like er 'Oh!', like this.

S: Ah, surprised.

E: Surprised, yes, surprised.

S: (Surprised face.)

E: Surprised face.

S: Yeah xx

E: And the other is a very very strange face, but

S: What strange face?

-E: have his for for /bɪ/-for ear, for eyes have four lines and (middle mouth) in the in the

S: Ah, I see.

-E: angry direction.

S: Ah, I see.

E: And er ... that's it.

S: So, you don't have a erm sleeping face.

E: I don't have a sleeping face.

S: Okay ... I think [S shows his picture to E]

E: No, this is the man who is thinking ... He's thinking with /stɪz/, you know what is a /sɪtʌ/?

S: Ah, I see, I see. Yes. Okay, okay.

E: What is the, what is the the face that, that I don't have? ... Do you know what is the face that I don't have?

S: Yes, I got it.

E: Which one?

S: Erm, crying face.

E: Crying face, I don't have crying face.

L and J

TASK ONE

J: I know you come from er Korea

L: Uh huh.

-J: (is in) and you do you live in er Seoul?

L: Yes, I live in Seoul.

J: In the centre.

L: Yes, the capital of the Korea is Seoul and now, right now I'm living in Seoul. But actually I was born in the southern part of Korea but, I studied in Seoul and after finish at the school and finishing my study I got a job at Seoul so-in Seoul, so I now live in Seoul.

J: Yes.

L: How about you? Where are you from? Which part, which area of Taiwan?

J: Er I'm from middle, middle country.

L: Middle? Middle of Taiwan.

J: Middle country, (and, here, I I think) I've been, I born here, for very long time, I've never moved to the big city or the other place. Yes, but I've fin- I've just finished the senior high school and come to Britain.

L: xx

J: And how many people in your family?

L: Ah, my family. Yeah. Actually, right now I'm living with my wife and my son, but ... the concept of family is very different I think here and in my country. In my country when I, when we say about family, uh we think that we have father, I have my father and my mother and my sisters and my brothers, all equally, and ... uh I have three sisters and

J: (Is it very big family?)

-L: yeah, three sisters and two brothers, it's big family

J: Are you oldest?

L: Mm, I have two older sisters.

J: Uh huh.

L: But, for, as a son I am the oldest son [laughs], the first born son.

J: Yes.

L: How about your family?

J: My family, yeah. In now, in my family we have now five people, mm my father and my mother me and my two youngers brother.

L Brothers.

J: Yeah, I have two younger brothers, so I am oldest.

L: Are they study?

J: Um, yeah. My er older brother he is studying now senior high school, yeah in Taiwan, but my youngest brother he is studying in er Costa Rica in er South

America.

L: Can I ask you what's your plan for the future study here?

J: Yeah. I want to study in a university in Britain.

L: Mm hmm. W-

J: But

L: What kind of subject do you want to major?

J: Er, in, I want to study business, business.

L: Business?

J: Yes.

L: Business

J: Yes, erm, I think it's quite difficult (though). Erm, do you want to study in er under

L: Mm. I think xx xx

-J: postgraduate

L: No, I, already graduated university and I (got a) degrees [laughs]

J: So

-L: and I came here just for study English and to be accustomed to the culture, English culture and the way of life of English people, so, mm, I have no plan to study here right now but, maybe in the future I am-I may have a plan [laughs].

J: [laughs] Erm ...

L: Mm, what do you think about London? xx

J: London, when I first I come here I don't-I didn't like London because first I don't like the food, yeah, it's quite terrible in here I think xx, you know in Taiwan xx

L: Yes, the Chinese food is very famous for its (plenty) and (his) xx taste.

J: Yes, so [laughs].

L: Yeah.

J: Then, also I don't like the weather.

L: No?

J: But, now I'm used to it.

L: Ah, you accustomed to the weather here, it's very lucky for you [laughs]

J: [laughs] What do, what do you think?

L: I still think it's not so good for me and I need more sunshine in daytime I think, I need more sunshine, in daytime.

J: Yeah. xx but I think in your country there are lots of sunshine, in your country. (It's warm.)

L: Yeah, in my country (there are a lot of) sunshine. But even if in winter time we have sunshine (all) daytime, if there was no snow or there was no rain, mm. But here (I think)

J: [laughs] It's a different way.

L: Yes.

TASK TWO

J: In my picture I think they're in a garden. The the house, be-er behind the house, they have the small garden. And there are one two three four five six, six people in the garden. And I think they they er have er one man and with his wife and his mother I think, and they've got er three children, two boy, one baby. And they are smiling, it seems quite happy and ... er they're in the garden and xx xx I don't know what else I can say, but the woman, ah she hold a baby, and ... and, ah, the er old woman she sit in the chair in the left in my left picture, left-hand, and the man xx sit on the right side. And the other people they are standing.

L: Mm.

J: I think that's all. Do you need any more information?

L: I think you said everything and I can-I can't find find the difference between my picture and your description, but you s-you told me that the old female sat in the chair,

J: Mm.

-L: You can see the chair? I can't, but I can-I can't see chair. I just see

J: Mm? She is sat in a chair.

L: She, (is she sitting?)

J: It's like a table (linking) a chair.

L: Oh.

J: Is it okay, no? ... I think this one's different.

L: It's very difficult but I think I can't see the chair.

J: No chair?

L: Yes ... Is there ... behind the man, there (are) anything? Any, any boxes or anything like that?

J: Boxes?

L: Empty empty boxes there, are there em-empty boxes?

J: Er, in the very right side (end, end of chair.)

L: Yeah, empty boxes.

J: Yeah.

L: How about window?

J: Window? Window is xx

L: It's closed or

J: I think is open.

L: It's open. I think in my picture the window is closed.

J: Window is open because (it looks like open). Do you have a rubbish in-near the wall /wɔ:/?

L: Near?

J: Wall, wall.

L: In the wall?

J: The behi-erm under the window.

L: Yes. I can see a black r-rubbish bag.

J: Do you have the the er cup in the table?

L: Table?

J: Um, the glass is ah it's not glass but cup.

L: Ah, I have no table.

J: No? I have table, quite big table.

L: Oh I have no table and, so, I have no cup.

J: [laughs]

L: I th-think it's difference.

J: Yes.

L: xx tell you the six faces (I've got). The first face I have is smiling face

J: Smiling, yes

-L: Yeah. Actually he's very happy and his mouth is very big.

J: I have this one.

L: Yeah. And his eyes is er mm, almost closed. Can you (magine)?

J: Yes.

L: Yes ... And the other one I have is er maybe feel, she is very astonished, she is surprised

J: Mm hmm.

-L: and so her eyes is very large, big, big. And the other one is oh, now he's very unhappy, so his eybrush, eyebrow eyebrow is ... shortened, eyebrow is (closed)

J: is maybe maybe three or four.

L: Yes, four, yes.

J: Four lines.

L: Four lines and (it is getting) closed.

J: And he looks like unhappy.

L: Mm. He looks like unhappy and he's very unhappy.

J: I have this one too.

- L: Yeah. And the other one is, he's (now very) angry, with the opposite of the smile face. Yeah. His mouth is ... mm down to the, his mouth, the end of his mouth is down and his eyes is up.
- J: Yeah, I have this picture too.
- L: Erm one other one is now is dreaming.
- J: Dreaming. You mean he's (not) asleep. Yes, uh huh.
- L: Either sleeping or dreaming, yes because it's I think he's very calm.
- J: Yeah ...
- L: Oh, (it's very difficult). Yeah, here is complain. One his eyebrow is down and one is up.
- J: Hmm. Looks like a confused or something, the picture, it, no he looks like a confused the picture is (quite)
- L: The picture is one eyebrow is down one eyebrow is up. Yes. It's all I have yes, I think so.
- J: This, the other one you didn't mention is the, he is crying, the picture, the other picture you didn't mention, mine picture is crying, crying.
- L: Crying?
- J: Yes.
- L: Yeah.
- J: This is the other one, my picture.
- L: Crying, yeah. (I think it's) mm.

C and K

TASK ONE

- K: Where are you from?
- C: I'm from Portugal, I (was) born in Coimbra,
- K: Coimbra?
- C: yeah, a city in the middle of the the country, is inland and is one of the oldest cities, erm students' cities in Europe. I think that my town was the second university in in Europe, if we say the first university is in Poland I think. This is my xx
- K: You mean the second good reputation?
- C: No, I'm not speaking about reputation,
- K: /biz/ business
- C: this is about about erm age.
- K: Ah.
- C: Is er one of the oldest universities in in Europe. I think is
- K: Aha. How old is your school?
- C: is more than ten centuries, around around ten centuries. And you?
- K: I'm from Japan, I'm from Kyoto in Japan. Kyoto is a mm most an-I think is a very /ænsɪent/ city, ancient city and there are many temples or shrine, also, it's very tourist city ... um, as well as students there as well, as well, no sorry.
- C: Which religion are, which religion is practised in /dɪs/ temples?
- K: Buddhist
- C: Ah, Buddhist.
- K: but my
- C: What is your religion?
- K: My?
- C: Your religion?
- K: Catholic.
- C: You are Catholic, why?
- K: Because my parents is Catholic, my parents are Catholic and I went to French Cath-

- I went to French Catholic s-school for fourteen years.
- C: Mm. So you, you you speak French well.
- K: I learned it for two, for three years, but I forgot.
- C: You forgot. You prefer English [laughs]. Why you start-did you decide to start to stu-studying English?
- K: Uh, when I, when I was working I considered considered my future, and I wanted to, I wanted to change my job, so, I think to find a new job it's necessary for me to speak English or, or, understand Eng-English. That's why. How about you?
- C: Um,
- K: Why do you xx English?
- C: just because I've been, I have been working after take my degree, I I took my degree ten years ago, I I finished erm erm economics course, so after I've been stu-I've been working during nine years (I think) and after I decide to stop and learn something different or, not different, er something new, so to I wanted to er to take a another degree, a Master degree, so I I decide to came to London and I need to know, to learn English for this.
- K: How long are you staying for? How xx
- C: I intend to stay two years ... And you?
- (K: I'm staying two more years.
- (C: You intend to return to Japan?
- Ah, two more years, yeah ... And what is your er main sub-main area of interest?
- K: I want to study accountancy.
- C: Do you think so? Do you like it?
- K: No I don't like it but erm when I look for a new job in Japan it will be useful so ...

TASK TWO

- C: So, in this picture I can see erm what I will define as a family. I th-erm, there are a couple er, elderly /pi:/-erm an elderly person may be mother of one of them and three sh-erm children, er one one of them is a little baby and he is not started started, he has not started walking yet. And erm it seems to be in wi-in erm in summer
- K: Mm hmm.
- C: because all of them are wore-are wearing erm fresh clothes. And er they are outside house, I I can't identify this is a reservatory [confuses with 'conservatory'] or no, but seems to be outside house.
- K: Mm hmm.
- C: Erm there are some plants with flowers, and erm
- K: Where?
- C: and there are table
- K: Where, which xx er where is the plant?
- C: W-the plants? One of them is above is erm er above the table.
- K: Mm hmm.
- C: The other one is xx on the house. One other seems to be inside house, (but you can see it) through the window and the one other one is on the erm left side erm er in er (a furniture) I don't know, more, I can't tell you more.
- K: Mm hmm ...
- C: I have to say more, mmore?
- K: Do they seem to be rich or ah well being or
- C: No, I don't say, I not say they seem to be rich, seems to be a er working family, erm they seems they live together the mother lives with, er the mother live with them. No it's er ... normal xx
- K: Is their house is very br-is their house very bright? Inside of house?
- C: I can't see nothing. I can't see anything inside. I think er in fact outside I I don't like the way the way it it is, seems to be a little erm (living er teeth up.)

K: First face is smiling erm, it seems very happy, seems to be very happy. Anoth-

another face is surprising.

C: Mm.

K: And another mm, something they are, ah face is worried about something.

C: Mm. Mm hmm.

K: Another face is angry.

C: Mm.

K: So it's very very angry

C: Very angry, mm.

K: Another face is sleeping, sleeping peacefully.

C: Mm.

K: Last one is er maybe he found, ah no, this face find erm /tʃɪtʃ/, no, cheating, cheating, because, ah, thi-the face find find er idea of cheating, somebody wanted er to cheat someone, cheat someone.

C: Mm.

K: That's all.

C: That's all? ... So if I follow you well I think my, I think the other face I got is that one, with someone crying.

K: Mm hmm. Ah, I haven't got a crying face.

C: You haven't? Yeah, so it's that one.

APPENDIX E

Questionnaires from Main Study and Replication

MAIN STUDY QUESTIONNAIRE

1. When you speak in English with other non-native speakers of English who do not speak your first language, do you do any of these things?
 - a) try to alter the way you speak depending on the first language of the person you are speaking to
 - b) have in mind an ideal way to speak English
 - c) try to speak English in a more standard way than you do with native speakers
 - d) try to speak English in a more standard way than you do with speakers of your own first language
 - e) try to imitate your teacher
 - f) try to speak very good English in order to impress the person you are talking to

2. Do you think miscommunication between non-native speakers of English is caused by any of these things?
 - a) poor communication skills
 - b) different ways of speaking English
 - c) unwillingness to communicate with other non-native speakers
 - d) cultural differences

3. Do you think your English is more normal than the English of speakers of other first languages?

4. What did you think of your partner's competence in English in the interviews?

5. Did you find it difficult to understand your partner's English at any point(s) in the interviews? Yes/No.
If yes, what was the cause?
 - a) your partner's speaking ability: grammar/pronunciation/vocabulary/all these/other things - please say which _____
 - b) your listening ability
 - c) you were nervous
 - d) other reasons - please specify _____

6. In the interviews, did you try to avoid admitting that you did not understand your partner? Yes/No.
If yes, was this to prevent your own embarrassment, your partner's embarrassment or both?

7. When you spoke to your partner in the interviews, did you alter your own speech

a) according to your partner's ability in English? Yes/No

If yes, explain how _____

b) according to how easily you were able to understand your partner's English? Yes/No

If yes, explain how _____

8. How closely did you identify with your partner during the interview?

a) very closely

b) fairly closely

c) not very closely

d) not at all

9. Has your attitude towards your partner changed over the last two months? Yes/No

If yes, explain how _____

10. In the interviews, what was more important to you?

a) to speak English perfectly

b) to cooperate with your partner in the tasks

7. When you spoke to your partner, did you try to alter your usual English speech in any way? Yes/No

If yes, what did you alter? e.g. sounds, stress, speed, pauses, other things - please specify _____

If yes, why did you alter your usual English?

- a) because you were being recorded and wanted to sound good on the tape
- b) because you thought your partner would understand you more easily
- c) because you were nervous
- d) because you wanted to speak more like your partner
- e) for another reason - please specify _____

8. Did you find it difficult to understand what your partner said at any point(s) in the talk? Yes/No

If yes, what was the cause?

- a) your partner's speaking ability: grammar/pronunciation/vocabulary/all these things/ other things - please specify _____
- b) your listening ability
- c) you were nervous
- d) (an)other reason(s) - please specify _____

9. If you did not understand your partner at any point(s), did you admit this to him/her? Yes/No

If not, what was the reason?

- a) to prevent your embarrassment
- b) to prevent your partner's embarrassment
- c) something else - please specify _____

10. What was more important to you during the talk?

- a) to speak good English
- b) to cooperate with your partner
- or
- c) were they equally important?

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