

pondência mantida com falantes nativos pode enriquecer o conhecimento sobre os valores sociais. Em suma: há diversos meios para se ter acesso à cultura estrangeira e esses mesmos recursos podem transformar-se em excelentes materiais didáticos. O que importa é mudar a nossa forma de olhá-los e procurar enxergar mais além das palavras e frases. É preciso avançar e procurar conhecer, cada vez mais, a forma de ser, agir e pensar de quem utiliza esse idioma para que possamos nos tornar, também, falantes competentes na língua estrangeira.

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# Transfer processes in L2 phonological acquisition and normative criteria: data from a Brazilian study

Kevin John Keys  
UFMG

#### Resumo:

Este trabalho relata alguns dados exemplificativos de um projeto de pesquisa sobre a aquisição de habilidades fonológicas entre estudantes brasileiros de inglês como LE estrangeira. Os dados estão contextualizados de duas formas: dentro de dois conceitos fundamentais para estudos em interlíngua (transferência e classificação de equivalência) e em termos dos critérios subjacentes à noção de inglês como língua internacional. Essas idéias são discutidas e os dados do projeto oferecem uma maneira concreta de visualizar os fenômenos envolvidos e suas implicações para a pesquisa em interfonologia e para a pedagogia do ensino de línguas estrangeiras.

**Palavras-chave:** transferência, fonologia, inglês como língua estrangeira.

#### Abstract:

This paper reports some exemplary data from a research project into the acquisition of phonological skills among Brazilian students of English as a foreign language. The data are contextualised in two ways: in relation to two basic concepts in interlanguage studies (transfer and equivalence classification) and in terms of the criteria that underlie the notion of English as an international language. These ideas are discussed and the data from the project offer a concrete way of looking at the features involved and their implications for research in interphonology and for foreign language teaching.

**Key-words:** transfer, phonology, EFL

#### Introduction

Teaching pronunciation skills in English classes appears to have a low priority among Brazilian teachers of English as a foreign language. This is because – according to the reports of teacher train-

ers and educators – of the perceived difficulty of the subject, both at the level of theory and in terms of practice, which leads classroom teachers to suspect that in the first place they lack the pedagogic/

linguistic competence necessary to work with aspects of pronunciation in class and secondly, their students are unlikely to be able to acquire phonological skills of a sufficiently high level for the effort to be worth making. Underlying these assumptions is a complex of ideas and prejudices that is generated by the prevailing orthodoxy regarding language teaching and that also derives from a lack of usable information among teachers as to what pronunciation teaching entails, what realistic attainment criteria might be and what the steps are that lead to that end. This paper addresses some of these issues from a theoretical perspective that is grounded in an analysis of data from the spoken English of Brazilian students. Although the data presented here are only an exemplification, we nevertheless aim to demonstrate that realistic expectations and concrete knowledge of the problem itself represent the only reasonable basis upon which the development of teaching techniques and approaches that are within the competence of the teacher and her students and that satisfy reasonable external requirements regarding communicative efficiency can be predicated.

### 1. Phonology and second language acquisition

One of the main questions relating to the acquisition of phonological skills in a second language is the relationship between the mother tongue (L1) and the target language, or L2. Clearly, there must be a relationship of some kind or else how do we explain the phenomenon of 'foreign accent', a feature of second language learning that is so common that lay people can easily iden-

tify the L1s of speakers expressing themselves in the hearers' L1 as an L2. The key point about the interaction between the L1 and the L2 phonological systems (which happens to be the focus here) is how and to what extent this interaction is potentially facilitative or inhibitory: that is, does the L1 sound system help in the acquisition of an L2 system or does it mostly cause difficulties?

In order to answer this question, we would need to be able to analyse the components of the phonemic inventory in such a way as to demonstrate that each element is separately 'learnable' and that there are qualitative differences between the items in each inventory which represent evidence for a tendency for these elements to be learned more rapidly or more slowly by learners in relation to other items. To be 'separately learnable' in any meaningful way would indicate that 'acquisition' – which we here take to mean 'the development of adequate control over' in a sensory-motor sense – of a discrete phoneme could occur independently of the growing control over other phonemes and separately from a consciousness of the intrinsic interdependence of phonemic realizations and the ways in which these are co-articulated – the way, in fact, that phonetics is transformed into phonology in a specific language. During this process, the problems and processes faced by the learner may appear in the form of a 'foreign accent'.

In addition, it is by no means clear that L1 influence is in fact predominant. One of the central topics of studies in second language acquisition (SLA) in general (e.g. White, 1989) and the acquisition of L2 phonology in particular (e.g. Archibald, 1998) concerns the role

that language's 'native speakers'; and objectively, 'accent' is only significant when the realization of the phonemes of the L2 are so remote from the parameters of intelligibility that communication is impeded. The role of the L1 in the process of the development of control over the L2 phoneme inventory is a subject, which is relevant to the study reported here.

### 3. Factors in the acquisition of an L2 phonology

The number of factors involved in the development of phonological skills is several (see for example, Yavas 1994, Keys 2001) and the areas focused on in this paper are those of *transfer* and *equivalence classification*. The notion of transfer has been widely discussed and the treatment here is largely based on Odlin (1989). 'Equivalence classification' is a term derived from the work of Fledge (and others) and is related to the development in the individual learner of phonetic categories during First Language Acquisition (FLA) that subsequently form a basis for the construction of functional categories for the phoneme inventory of the L2. That is, the perceptual parameters for interpreting the phonetic status of an L2 phoneme derive from L1 processing and categorization, with consequences for the eventual production of L2 phonemes within these parameters.

#### 3.1 Transfer

Odlin's (1989) work on language transfer begins by outlining some of the problems inherent in the study of this phenomenon, including problems of definition, comparison and prediction. Language is vague and unspecific; defini-

Further discussion of this topic is unfortunately outside the scope of the present paper.

#### 2. What is a 'foreign accent'?

'Accent', broadly speaking, is essentially a socio-cultural question (Bex & Watts, 1999). Local and individual variation in the speech production of speakers of an L1 is a normal feature of any language. The question of status of these specific variations is related to endonormative criteria that are specific to the speech community and are determined by extra-linguistic factors such as history, social perceptions, educational ideologies and economic and power relations within the community, all of which are connected to subjectively constructed notions about what constitutes the 'standard' form of a language and how regional and idiolectal variations are related to this (see also Trudgill, 1999, Svartik, 1998).

'Accent' as an objective linguistic phenomenon is a question of what point the speaker of a second language is sufficiently capable of controlling the phoneme inventory of the L2 to allow for effective communication in that L2, conceivably though not inevitably with

tions are never complete or wholly satisfactory, either for semantic (connotations, polysemy) or for ideological reasons. The term 'applied linguistics' itself is ill defined and the domain is open to include a superfluity of (sometimes conflicting) intellectual interests. The term 'transfer' is no exception; Corder, indeed, seemed to advocate abandoning the term altogether (Corder 1983:21). One way around this problem is to define what transfer is not, to leave a clearer idea of what is contemplated in the terminology.

It is also necessary to consider the term transfer and its relation with the idea of 'interference', a term which was itself rejected by Corder. Odlin's position is that the influence of the native language is positive and helpful ('facilitative' in Corder's formulation) rather than not. The preferred term here is *negative transfer*, as this indicates the possibility of its corollary, *positive transfer*, and all this can be seen as a way of explaining the effect of, for example, false and true cognates in the lexis of the two languages: false cognates (*to pretend* and *pretender* in English and Portuguese respectively) may lead to negative transfer and true cognates (*to pronounce* and *pronunciar*) to positive transfer.

In addition, it is not always the case that transfer processes indicate a reversion to the L1, as was claimed by Krashen (1985), where applying an L1 rule in an L2 context was seen as a consequence of a lack of knowledge of the L2 rule. For Odlin, this position ignores the advantages that are implicit in the possession of a previous language (or languages) by the learner who is beginning to learn an additional idiom. The interaction between the language

is not always manifested in rule-based behavior: cross-linguistic benefits can be seen at levels of orthography, for example, or in the long-term results of language contact in some cultural contexts. (This is not to forget, moreover, the potential effect of UG parameter settings.)

In many learners, the distinction L1 and L2 is shorthand for a situation where other languages and dialects may be involved. Transfer, then, may not always come from L1 sources. As Corder shows, other languages in development in the learner may help in the acquisition of a further language, and may even be preferred by the learner to the L1 (Corder 1983:25).

This leads us to look at the two types of transfer that Odlin distinguishes and which has links to Corder's notion of (perceived) 'borrowability': *borrowing transfer* and *substratum transfer*. The first of these, *borrowing transfer*, refers to the influence that is sometimes felt on a previously learned language by a language that is the process of being acquired: the L2 may have an effect on the L1 of the learner. *Substratum transfer* is the focus of this study and refers to cross-linguistic influence from the L1 to the L2. Odlin's definition of substratum transfer is as follows:

Transfer is the influence resulting from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired. (Odlin 1989:27).

This is only a tentative approach to a definition and all the terms invoked here would need to be examined carefully before an adequate determination of what transfer might be can be outlined.

The study of transfer depends on systematic comparisons of the languages involved. Structural factors are fundamental to these comparisons but they are not sufficient: some awareness of non-structural factors has to be available (Odlin 1989:28). In addition, descriptions need to be augmented with theoretical principles which allow for useful predictions to be made about what will be difficult or easy in the study of language B by speakers of language A. Descriptive accuracy is essential for a theoretically adequate grammar to exist; no language has yet been completely described so this precondition for theoretical accuracy is unfulfilled.

A key question in comparative studies lies behind the earlier assumptions (Lado 1957, Fries 1945) that equated *difference* and *difficulty*. More subtle analyses have been required to understand what 'difference' may mean. For example, where a structural feature in one language has two counterparts in the target language, the degree of difficulty may be increased, but asymmetrically. For example, the verb *to be* in English has two counterparts in Portuguese (*ser* and *estar*). This feature may cause problems for English speakers learning Portuguese, but not for Portuguese speakers learning English. This point leads us to the question of whether a comparison of two languages therefore has 'predictive' force in terms of 'difficulty' of acquisition.

Odlin identifies two types of prediction: that based on records of past events (French learners of Arabic in the past have left performance data about the problems of learning Arabic) and that based on cross-linguistic comparisons. The latter type would require pre-

dictions to be made before learners actually began to learn the language and their performance could be studied. This means that the comparison of the languages in question would have explanatory power, explaining why transfer will or will not take place under certain conditions.

The classification of outcomes of cross-linguistic influence that Odlin presents is:

- I. Positive transfer
- II. Negative transfer
  - i. underproduction
  - ii. overproduction
  - iii. production errors
  - iv. misinterpretation

III. Differing lengths of acquisition time (Odlin 1989:36)

*Positive transfer* can be seen in a reduction in vocabulary acquisition time for languages with a similar lexicon; ease of acquisition of vowel systems where these systems are alike; the facilitating effect of comparable writing systems; syntactic similarities (word order, articles, relative clauses) help with the acquisition of grammar. An evaluative measure of ease or difficulty can only be done by comparing speakers of different L1s learning the same L2.

*Negative transfer* here means divergence from target language norms. These divergences are not necessarily to be defined in terms simply of production. *Underproduction* means that some L2 structures rarely appear in learners' performance. Another term for underproduction is *avoidance*, where learners will tend not to produce structures

that they perceive to be very different from their L1 versions. Overproduction may then be a consequence of this: by avoiding certain structures, learners come to depend on a limited range of alternatives which then appear in their production more frequently than they would for a native speaker.

Production errors include

- substitutions, where an L1 word is used instead of a L2 item;
- colques, which are defined as errors based on L1 structures (for example, *the house of my friend* rather than *my friend's house* in BP/L1<sup>1</sup> speakers learning English/L2); and

- structural alterations, which include hypercorrections (for example, a BP speaker learning English will be aware of the need to avoid pronouncing word initial <r> as [x] instead of [ʀ] and may over-correct word initial <h> to [ʀ], giving [ʀ'ouʀE] for *hotel*).

Misinterpretation can include an inability to discriminate distinctive phonemes in the L2, leading the learner to produce an inappropriate sound in particular contexts (an English/L1 speaker learning BP/L2 may produce the same vowel sound for the final vowels in *avó* and *avô*, for example, because of a perceptual inability to discriminate between the two phonemes).

Differing lengths of acquisition is a way of seeing the cumulative effects of cross-linguistic influence on the ability

to achieve 'a high degree of mastery of a language' (Odlin 1989:38). Some languages may take longer to learn than others (because of relative degrees of difficulty at the L1-L2 interface), although empirical evidence for this is wholly lacking.

### 3.2 'Equivalence classification'

Flege's (1986) study builds on the theory proposed in an earlier study (Flege 1981). The 1981 paper does not mention the term 'equivalence classification', though it is implicit in the hypothesis that is put forward there. The 1986 study is based on a data-driven testing of the hypothesis that gives some support (not unqualified) for the eventual 'equivalence classification' position.

Fundamental to Flege's (1986) paper is the assumption that the differences between adult and child learners of an L2 have to do with the following facts:

- (1) that for the child, FLA processes are not yet complete;
- (2) that therefore, because of the critical period hypothesis (CPH), children are more adept at language acquisition than adults and the definition of a further language being studied, in addition to the mother tongue, as an 'L2' may be misleading – a better definition might be a 'second L1';
- (3) that, phonologically speaking, the adult has a fully formed set of phonetic categories in place when she comes to study the L2, categories which have to be adapted during the SLA experience.

It should be made clear that when

stating that these 'phonetic categories [are] in place' what is meant is that the learner has cognitively established the physiological (in terms of the disposition of the vocal apparatus) and acoustic parameters of the phonemes of the L1. This means that the adult learner must learn new sounds in the L2, and must also discover how and in what ways to modify previously established patterns of production (the sounds of the L1) (Flege 1986:9). A key distinction is made here between 'new' sounds and 'similar' sounds. New sounds are those that have no direct equivalent in the L1 and similar sounds are those that differ acoustically only in some small degree from what is essentially their L1 counterpart.

The question centers on whether dealing with the new sounds is made difficult because of the CPH, with adults' ability to change their established habits having diminished; and whether the influence of the similarity between sounds means that the L2 targets are not achieved because learners cannot adapt their L1 phonetic categories sufficiently to account for the (relatively slight) acoustic differences between the L1 and the L2 sounds. This is hypothesis 1 in the Flege study. In addition, Flege and his researchers wanted to know if attention to speech production by the learner would improve performance (hypothesis 2). They also wanted to test the 'equivalence classification' hypothesis (hypothesis 3) which could explain why even advanced learners of an L2 are unable to adapt their oral production to authentic target norms when the sounds involved have

L1-L2 counterparts that differ only acoustically (that is, that do not differ to the extent that a separate IPA symbol is used to represent them)?

For a long time it has been assumed that L2 learners will tend to substitute an L1 sound for an L2 sound if they feel that the L2 sound belongs to a phonetic category they have already established as part of their repertoire (e.g. Weinreich 1953). The question then is if the opposite is true: if the L2 sound is not perceived to have an L1 counterpart, will that sound be produced more authentically by learners?

The authentic production of new sounds requires the establishment of new phonetic categories; the production of similar sounds requires that existing phonetic categories be modified. The establishment of new phonetic categories involves the setting up of a central phonetic representation containing information concerning the perceptual target together with a motor plan for generating that sound through physical articulation. This, we should recall, is a task that faces adults who, if the CPH is correct, have lost some of their cognitive flexibility (or 'neural plasticity' – see Stapp 1999) and will thus have more difficulty adding a new sound to the repertoire than when they were children.

Brière (1966) (English/L1 speakers learning French/L2) and Flege & Port (1981) (Arabic/L1 speakers learning English/L2) were two studies that reported that new sounds were more difficult to produce authentically than similar sounds. Flege's (1986) criticism of these studies is that the learners were inexperienced with the L2; that delayed imita-

<sup>1</sup> For example, /a/ in English is "usually articulated further back" than Portuguese /a/ (Azevedo, 1981:62) but the difference is not great enough to justify alternative notation.

tion was tested rather spontaneous speech; and the judgments were based on non-native phonetic transcriptions. His 1986 study therefore aimed to compare the production of two sounds (/u/ and /y/ in French) amongst English L1 speakers. The French /u/ has its counterpart in English, with the acoustic difference being that the English /u/ has higher average F2 values.<sup>3</sup> French /y/ has no equivalent in English and is therefore a 'new' sound for the learner.

The data reported in the study support the hypothesis (hypothesis 1) that predicts that L2 learners' production of the new vowel /y/ and the similar vowel /u/ would have different degrees of authenticity, the production of the similar vowel proving more difficult than that of the new vowel. The English native speakers produced /y/ sounds with F2 values that did not differ significantly from those of native French

speakers; conversely, these speakers (English/L1) produced /u/ sounds with average F2 values that were significantly higher (that is, more English) than native speakers of French. The data here confirm the hypothesis, but the data set is limited to a comparison of two sounds only and future studies will need to look at more and different kinds of phonemes in the interacting inventories (Flege 1986:30).

#### 4. Cross-linguistic transfer from Brazilian Portuguese (BP)

Azevedo (1981) was a study of English/L1 speakers learning BP/L2 and analyzed the types of error made by these speakers on encountering the differences between the phoneme inventories of the two languages. For example, in describing the phonemes BP /a/ and English /ɑ/, Azevedo offers the following analysis:

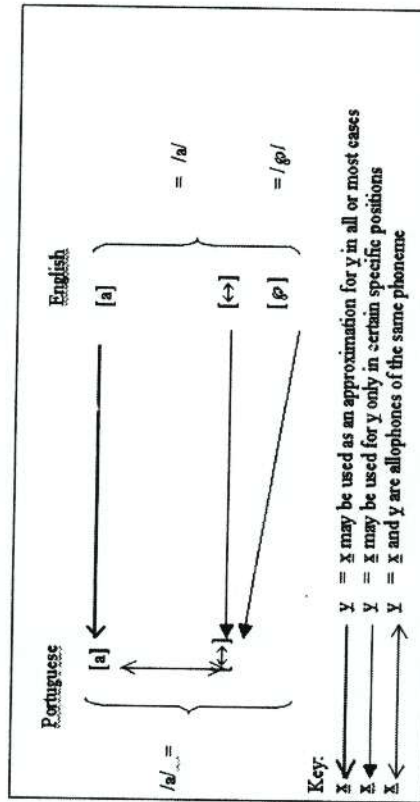


Figure 1: Phoneme positions in BP and English: /a/ and /ɑ/, /Á/ (Azevedo, 1981:6)

<sup>3</sup>Speech produces waves of sound and 'peaks of amplitude [occur] at certain frequencies, and we refer to these peaks as formants'; Ball and Rahilly (1999:163). All phonemes have characteristic formant patterns. Tongue advancement is usually reflected in [Formant]2 values and it is the position of the tongue which differentiates BRE /u/ from French /u/ phonetically. Therefore the average F2 values are of interest in this case.

In the case outlined here, BP /a/ and English /ɑ/ are considered close enough phonetically for the English sound to be used as an equivalent for the BP sound (the vowel in bar in BP is realized as the same as the vowel in bar in English with no loss of authenticity). The same applies for the other phonemes in Azevedo's example: English allophonic [k] is an acceptable substitute for BP /a/, where the BP allophone is also [k] (as in word final /a/: *folha*, *coma*).

Azevedo (1981), was a study of English/L1 speakers learning BP/L2. The study reported here is looking at BP/L1 speakers learning English/L2. Are there any categories of phoneme classification that might cause problems in realizations that are potentially ambiguous because one of the interacting phoneme inventories lacks phonetic distinction in that area? As we shall see later, when elaborating intelligibility criteria for the teaching of English as an international language (Jenkins, 2000), one of the key features that was seen to complicate pho-

nological teaching/acquisition is the question of vowel quantity: failure to distinguish vowel length on the part of one English/L2 speaker in interaction with other English/L2 speakers (not, note, with speakers of English/L1) was commonly seen to lead to problems of ambiguity (Jenkins, 2000:141). The comparison of the phoneme inventories for BP and for English show that minimal pairs that are characterized by vowel length are absent in BP but present in English.

Looking at the case of BP /i:/ and English /i/ and /I/, we can see that the allophonic variation in BP that features as [i] and [I] is represented as a phonemic contrast in English, /i/ and /I/. According to Azevedo's examples, this gives BP [I] in *citar*, equivalent to [i] in English *sitar*. However, problems arise when English/L1 speakers transfer [I] into BP, where /i/ is the underlying phoneme, e.g. BP *diz* /dZiz/ pronounced with the [I] of English *this* /DIs/ (Azevedo, 1981:60). The problem for BP/L1 speakers learning English/L2 can be set out as follows:

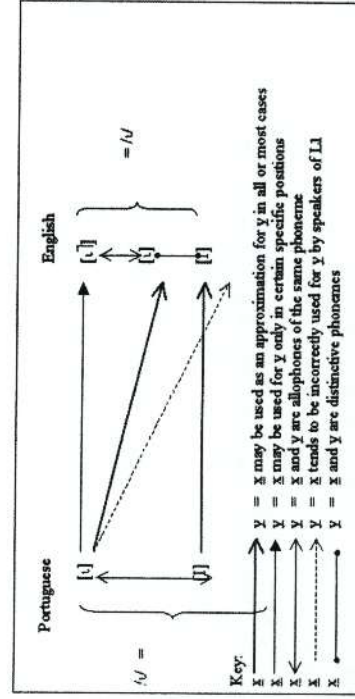


Figure 2: The relationship between the phonemes /i/ and /I/ in BP and English and their allophonic equivalents

In the case outlined in figure 2, the allophonic forms of BP /i/ ([i] and [i]) are satisfactory realizations of English /i/ and /i/, respectively, giving [sit] for seat and [sit] for sit, for example. Furthermore, the English allophone [i] (with vowel lengthening occurring before voiced syllable-final obstruents – see [si:d]) can also be realized with a shorter form, [i], in similar circumstances ([si:d] for seed, for example). However, problems may arise with the substitution of BP /i/ where English has /i/. In the data being analyzed in a project at UFMG, the recordings of learners producing minimal pairs in English illustrate this phenomenon very clearly.

### 5. The UFMG data: an example of equivalence classification?

Subjects were asked to read a list of minimal pairs (see appendix 1) and were

recorded during the task, these recordings being digitalized, allowing for spectrographic analysis of the oral production in the post-recording phase. Spectrographic analysis permits, among other features, the identification of the component formants of recorded vowel sounds. At the time of writing 52 subjects have so far been recorded, completing the minimal pairs task and three other tasks involving the reading of word lists. These data are in the initial stages of analysis. A previous set of tasks involving spontaneous speech and the reading aloud of continuous text has been conducted during this project and reported elsewhere (Keys, forthcoming).

As an illustration of the question of L1 transfer, possibly characterisable as equivalence classification, we can see the difference in two subjects' realization of the minimal pair <sleep, slip>.

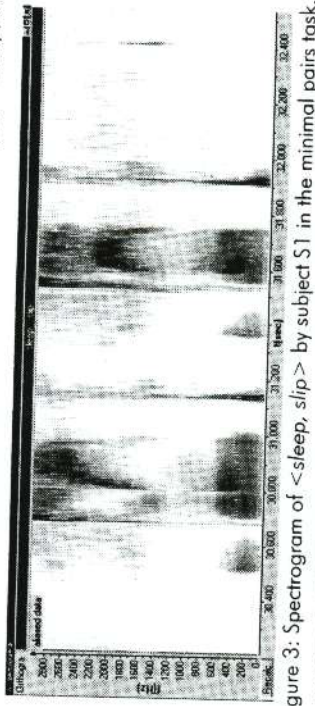


Figure 3: Spectrogram of <sleep, slip> by subject S1 in the minimal pairs task.

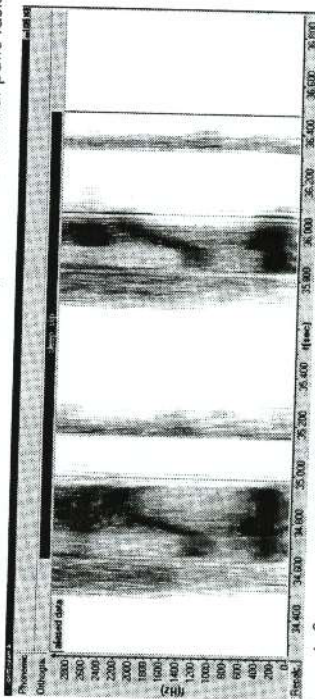


Figure 4: Spectrogram of <sleep, slip> by subject S2 in the minimal pairs task.

Table 1: Formant (F1, F2) values for the phonemes /i/ and /i/ for subjects S1 and S2

subject	phoneme: /i/		phoneme: /i/	
	F1	F2	F1	F2
S1	366	925	430	2067
S2	387	882	387	947

In figure 3, the difference between the two vowel phonemes can be seen in the darker regions of the formants: the shape of the two sounds is noticeably different. Whereas in figure 4, the similarity between the two forms is striking, the only clear difference between the two realizations being the slight one of duration, <slip> taking slightly less time to be realized. A more specific analysis of the formants shows the presence and absence of differences more emphatically:

The F2 values for S1 in the realization of phoneme /i/ are closely matched by those of subject S2. However, the F2 values for /i/ do not show this parallel: the F2 values for S2's realization of /i/ are much the same as for /i/, giving the same kind of formant shape to the vowel sound. The higher F2 values of S1's version of /i/, together with a raising of F1 values, account for the difference in perception of the phoneme by a listener and show that this subject is capable of making the distinction between the phonemes in English/L2. S2, on the other hand, has placed both phonemes within the same phonetic category (as shown by the F2 values) and is unable to distinguish the phoneme pair: for this subject, the two sounds are allophones of /i/.

F1 and F2 values are related to articulatory settings (e.g. tongue position, lip rounding/unrounding - see Ladefoged, 2001:39-41) so it is clear that S2 has maintained the articulatory setting for <sleep> in the production of <slip> (because <sleep> came first in the task). S1, on the other hand, has made an adjustment in articulatory setting which, while it may not be parallel in English/L1 speakers' repertoires, nevertheless provides a perceptually discriminable pair of vowel phonemes that are phonetically distinct.

It should be noted that the comparison of these two subjects is not statistically motivated and there is no implicit comparison being made here with 'native' English/L1 speaker realizations. What the data analysis is trying to show is where and in what contexts learners of English/L2 are able to develop an inventory for English phonemes that is equivalent in the set of distinctive phoneme contrasts that it demonstrates, and not in terms of how like or unlike 'native speaker' production these realizations are. Learners need to be able to control an inventory of minimal pairs that are identifiable from within their own oral production, so that the distribution

of phonetic categories parallels the distribution in the L2. This does not require that subjects produce phonemes that are exactly equivalent to those of the 'native speaker' but rather that they employ a set of distinctive features that are mutually exclusive and that exploit a closely similar disposition of articulatory settings to that of the L2 in phonetic terms and that this set of features contains the same number and degree of differentiations as the L2 inventory.

### 6. English as an international language: variation and standards

Note that the term 'native speaker' is being used here somewhat reluctantly and temporarily, in the absence of discussion of more accurate terminology. The phrase 'native speaker' (NS) in the context of foreign language teaching (FLT) is highly culturally loaded, bringing with it implications regarding the status of the NS that have for a long time been unexamined.

In the context of the 'globalization' of English, the statistical data<sup>4</sup> show that the NS is in minority among users of English as a means of communication. This process of globalization brings many complex problems to the fore, not the least of which is that of standards and intelligibility. Graddol (2001) makes the point that

English has two main functions in the world: it provides a vehicular lan-

guage for international communication and it forms the basis for constructing cultural identities. The former requires mutual intelligibility and common standards. The latter encourages the development of local forms and hybrid varieties. (Graddol 2001:27)

In the context of regional diversity and a common core of mutual intelligibility, who is to say that the best arbiter of standards is the NS? In an experiment reported in Graddol (2001), Smith (1992) investigated English use among nine nationalities<sup>5</sup> and found that English as a *lingua franca* between these groups functioned very well but that the NSs "were not found to be the most easily understood, nor were they, as subjects, found to be the best able to understand the different varieties of English" (Smith 1992 in Graddol 2001:28). That is, the NSs did not have the perceptual flexibility necessary to accommodate to variation in L2 English (they were not good listeners of English as an International Language) and also produced an English variety that was among the most difficult to interpret (they were not good speakers of EIL).

Nayar (1998) discusses the question of the exaggerated status of the NS from the point of view of pedagogy. Nayar states that the field of applied linguistics has created and perpetuated the image of the NS as the unquestionable authority of not just language ability but also of expertise in its teaching. [...] As an

<sup>4</sup> "World-wide, there are over 1,400 million people living in countries where English has official status. One out of five of the world's population speak English to some level of competence. Demand from the other four-fifths is increasing. ... By the year 2000 it is estimated that over 1 billion people will be learning English." British Council English 2000 project, cited in Graddol (1997).

<sup>5</sup> That is, speakers from China, India, Indonesia, Japan, Papua New Guinea, the Philippines, Taiwan, the UK and the US.

initial gatekeeping shibboleth, natives can assume primacy over pedagogic expertise or actual learning competence in the ELT enterprise (Nayar, 1998:287).

Jenkins (2000) also cites Nayar in her review of the NS/NNS debate. Leaving aside the pragmatic facts that many NS teachers of EFL have minimal preparation in terms of pre-service training (and many, Jenkins claims, do not go beyond their initial training programme) there remain two considerations that are crucial in assessing the true nature of the (potential) pedagogic competence among NSs. First, there is the fact that US and UK cultural experience regards monolingualism as an acceptable norm, whereas in fact the experience of most people in the world is of multilingualism<sup>6</sup>. Secondly, the NS can, by definition, have no experience of learning English as a second language. As Siedlhofer (cited in Jenkins) points out, the NNS teacher has "a shared learning experience" with students that "should [...] constitute the basis for non-native teachers' confidence, not for their insecurity" (Siedlhofer, 1999, in Jenkins 2000:219).

The decentralization of the NS in relation to the pedagogy of TEFL has its correlate in the debate about standards and varieties with reference to the phenomenon of English as an international language. As Graddol demonstrates, there are conflicting tendencies within a

globalised language – toward local identity construction yet within parameters of mutual intelligibility. Crystal (2001) also recognizes this:

*the need to maintain international intelligibility demands the recognition of a standard variety of English, at the same time as the need to maintain local identity demands the recognition of local varieties of English. My fundamental principle is that we need both in a linguistically healthy world. (Crystal, 2001:57).*

At the same time, it is clear that the NS centres are no longer the most appropriate sources for decision-making in this respect. In light of the obvious fact that exchanges in English world-wide must occur mostly between English/L2 speakers (rather than between English/L2 and English/L1 speakers), there is a clear argument in favor of basing judgments about normative parameters on actual L2 speakers' needs and practice rather than on arbitrary (and often fictitious) 'standards' derived from English/L1 speaking communities. Jenkins (2000) is concerned exactly with the phonology of English as an international language and the research reported there is focused on English/L2 speaker interactions and probable sources for misunderstanding that derive from a lack of conjugality between the competing models of English/L2 that speakers of different L1s bring to the exchanges.

<sup>6</sup> "Multilingualism is the natural way of life for hundreds of millions of people all over the world. [...] With around 5,000 languages co-existing in fewer than 200 countries it is obvious that an enormous amount of language contact is taking place." (Crystal, 1987:360).

<sup>7</sup> See for example the prejudice against the so-called 'split infinitive' in English, a prohibition that is the result of basing grammatical categories in English on those of Latin (see Crystal, 1995:195 for further discussion.)

Jenkins derives from that data a tentative notion of what might comprise the 'core' features of a set of phonological skills that would facilitate mutual understanding in English/L2 speaker interactions. Her aim is to outline a basic 'core' of phonological features that she sees as essential for achieving mutual intelligibility between speakers of English/L2 of differing L1s using English as a global 'lingua franca'. The essence of the "Lingua Franca Core" (Jenkins, 2000:123ff) is based on the claim that

*the main issue at stake [...] is the extent to which the abundance of transferred items typical of much NBES<sup>8</sup> speech needs to be replaced with closer approximations to the L2 target in order to safeguard phonological intelligibility. (Jenkins, 2000:123).*

Here, then, we can see the two key concepts discussed in this paper: *transfer* and *equivalence classification* (here 'approximation'). As we saw in our example of the production of <sleep, slip> in the UFMG data, the subject S2 has transferred the formant values for an allophone of BP to an English phoneme, thus creating a phonetic category for English/L2 that is not close enough to L2 phonetics, as evidenced by the excessive overlap with what should be a distinctive phoneme pair (/i/, /I/). It is precisely this question of vowel quantity that is presented in Jenkins's Lingua Franca Core (LFC) as being fundamental to the pos-

<sup>8</sup> Jenkins uses the term "Non-Bilingual English Speaker" – NBES – to designate L2 learners of English; learners who have achieved a high degree of competence are BESs [Bilingual English Speakers], as are speakers of English/L1 who have achieved mastery of a further language. The self-explanatory term MES [Monolingual English Speaker] completes the set. The point is that the misleading distinction between 'native' and 'non-native' competent speakers is hereby extinguished.

There is "a lack of EIL research in the public domain" (Jenkins, 2000:132) so further work – a lot of it – is required before the conceptualization of the LFC as represented there can be said to be secure in its dimensions and relevance. Research, for example, would need to be done on the intelligibility of BP/L1 speakers' production of English/L2 for other L1 speakers of English/L2 (rather than according to the parameters set by 'native' English/L1 speakers). The topics that are of interest here include phoneme-level items such as minimal pair distinctions and consonant production (e.g. voicing/de-voicing and cluster reduction) as well

as prosodic features such as word- and sentence stress. Moreover, the objectivity of theory-based phonological/phonetic inquiry is taking place within a context (TEIL) that is essentially socio-political in nature. Any research conducted in this area will have to recognize the implications of this fact, as there would be little point in developing a normative set of references for phonological competence if the whole question of standards and norms is unresolved at the level of implementation. Theory and practice need to be co-articulated to produce the potential for change.

#### Appendix 1:

The minimal pairs task (UFMG, 2001)

1. dad	dud	22. bun	barn
2. men	man	23. lack	luck
3. rest	rust	24. meet	mitt
4. reed	rid	25. duck	dark
5. cat	cut	26. don	dawn
6. bed	bad	27. fed	fad
7. deed	did	28. deep	dip
8. hat	hut	29. sod	sawed
9. jest	just	30. hut	heart
10. cod	cawed	31. pot	port
11. buck	bark	32. desk	dusk
12. fan	fun	33. feet	fit
13. cot	caught	34. fox	forks
14. sleep	slip	35. mad	mud
15. muck	mark	36. bed	bud
16. tot	taught	37. cut	cart
17. pen	pan	38. met	mat
18. bat	butt	39. puck	park
19. fled	flood	40. led	lad
20. seep	sip	41. bet	bat
21. medal	muddle	42. den	dun

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