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“Do you say /kɑ:/ or /kɑ:r/?”

What future teachers should learn about English phonetics,
phonology and pronunciation

1. Introduction

“Do you say /kɑ:/ or /kɑ:r/?” is a real question which was asked by a German student of English who approached her phonetics teacher after one of the first lectures of the semester. This question and the context in which it was uttered are representative of a large number of similar questions I have been asked since I started teaching this subject – for example, “Do you say /v/illage or /w/illage?”. It seems that students frequently notice that they have problems which they cannot solve on their own, but that they still do not dare ask them in front of a whole class of other students. One reason why this might be the case is that they believe they should know the answers based on what they learned at school, so that these questions could be considered “stupid”. The curricula for English at *Gymnasium* (a type of German Secondary School) do indeed include certain aspects related to phonetics, phonology and pronunciation (see Section 3 of this paper), and future teachers should obviously have a good command of every aspect they are expected to teach their pupils some day. However, this is not necessarily the case at the beginning of their studies; after all, students come to university precisely to study and to learn. The main question of this paper is, therefore, what we as their teachers can do to help students improve their linguistic knowledge and skills and to become good teachers in the future – or, to put it differently: what should future teachers learn about English phonetics, phonology and pronunciation? In my attempt

to answer this question, I am going to refer to a specific group of students, namely those studying English to become teachers at different types of German schools: both primary school (*Grundschule*) and the increasingly demanding secondary school types *Hauptschule*, *Realschule* and *Gymnasium* (at which pupils take their A levels). While a number of the aspects discussed here presumably have more general validity, they emanate from the analysis of a specific educational system, namely that of Bavaria. University-related aspects refer specifically to the universities of Erlangen-Nuremberg and Augsburg.¹ The expression *should learn* in the title of this paper is not intended as prescriptive; what follows are merely suggestions. When referring to *English*, this is understood to include all varieties of the language – but in practice, examination requirements favour concentrating on British and American English in the teaching process (see Section 5 in this paper). The terms *phonetics*, *phonology* and *pronunciation* are used with their conventional linguistic meanings: *phonetics* is the study of speech sounds and their articulation, *phonology* the study of the sound system of a language and *pronunciation* a practical skill (see Dretzke 1998: 17). To refer to all three simultaneously, the cover term – or rather, abbreviation – *PPP* will be used.

2. *Why does pronunciation matter?*

Whenever we wish to communicate orally, we have no choice but to use pronunciation of some kind to transmit our message – or, as Tench (1981: 109) puts it: “Speech is much more than pronunciation – but it is impossible without it!” The learning or acquisition of intelligible pronunciation should be one of the first aims of every language learner, with effective communication being the main goal (Tench 1981: 17-20; 109). However, this does not

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suffice as soon as a certain standard has been reached: in the introduction to his play *Pygmalion*, Shaw (1916: 5) claims that “it is impossible for an Englishman to open his mouth without making some other Englishman despise him”. By this he means that whenever we hear a person talk, we are not only concerned with intelligibility, but also derive information about the speaker’s regional, social and educational background. With regard to German learners – who this paper focusses on –, Pascoe (1987: 30-38) discusses the possible negative associations with the mock German accent so common in films about the Third Reich. While these stereotypes are less likely to be applied to Southern German speakers because their regional accents are perceived to be less emphatic, harsh and brisk than those in the North (see Pascoe 1987: 37-38), Herbst (1992) has shown another, even more important argument for learners to strive for a pronunciation which is as native-like as possible: in his empirical study, several native speakers of English were asked to evaluate the quality of a number of spoken texts about the same topic. The least correct version, which combines grammatical, semantic and pragmatic mistakes, was perceived to be better English when read with a native accent than the most correct version spoken with a strong German accent. This leads Herbst (1992: 8-9) to conclude that good pronunciation camouflages other mistakes – which is of particular interest for learners of a language. According to Piske (2012: 45), native speakers tend to perceive speech as foreign-accented based on a variety of parameters such as segmental errors (that is, mispronounced sounds) – which have been proved empirically to play the most important role –, prosodic errors (for example, incorrect intonation), and fluency (for example, hesitation phenomena; see also Götz 2007: 68).

Since future teachers of English are going to function as multipliers one day (Herbst 1992: 9), they should dedicate particular attention to their pronunciation: Kucharek (1988) analysed the pronunciation of 600 sixth-graders and found that pupils made more mistakes if their teachers’ pronunciation was bad. The quality of teachers’ pronunciation is thus an important determinant of their future pupils’ success in learning the English language. Sešek (2007: 418) also points out that teachers with a deficiency in one particular aspect of language competence may pass on this deficiency to their pupils in several ways; not only by providing them with incorrect input but also by not attending to

the respective deficiencies in the learner output. Good pronunciation is particularly important for primary school teachers not only if the critical period hypothesis should be correct (but see Angelovska 2012: 18-38 for a critical discussion), but also because one of the main aims of early language training is to convey a feeling for a language rather than to teach grammar (see Section 3). Butler (2007) also finds that young learners prefer to have L2 teachers who do not speak with a foreign accent.

In language instruction, pronunciation is very often transmitted by incidental learning rather than through explicit training. Therefore an obvious follow-on question is what role phonetics, phonology and pronunciation actually play at school in terms of explicit instruction.

3. What role do phonetics, phonology and pronunciation play in school curricula?

Bavarian primary school pupils can choose between English, French and Italian from grade three onwards (see the curriculum *Bayerischer Lehrplan für die Grundschule*: 28). Judging from the content of the curriculum, pronunciation only seems to play a minor role with regard to speech production – but perceptive PPP skills constitute a very important aspect of the *Bayerischer Lehrplan für die Grundschule* (183-184; 255-256): pupils are supposed to develop a feeling for the intonation and rhythm of the foreign language, to differentiate between typical sounds and to become aware of typical combinations of sounds. In addition, it is mentioned that they should imitate verses and rhymes with the correct intonation, internalise rhythm and speech melody through songs and stories, practise rhythm by clapping and articulate sounds that are not present in their mother tongue. According to the curriculum, the articulation of difficult sounds such as those corresponding to the grapheme <th> should be practised subconsciously through various ways of speaking.

Due to limitations of space, the following discussion of PPP in secondary schools will be restricted to pupils taking up English in grade five of the Bavarian *Gymnasium*. PPP is included in the curriculum from the very beginning (see the curriculum under the heading *Aussprache und Intonation*, ‘pronunciation and intonation’). The focus on the articulation of individual speech

sounds seems to be restricted to grade five, with the higher grades concentrating more on fluency and intonation. Possibly the university students' vague feeling that they ought to remember a particular pronunciation stems from the fact that explicit articulatory training is restricted to the lower secondary levels and thus only a very distant memory. Nonetheless, the importance of PPP is recognized throughout the curriculum, with the highest grades concentrating on aspects such as the stylistic effects of different variants.

4. How can we assess students' pronunciation?

From a university teacher's perspective, an important question in the context of PPP is how to assess students' performance. The *Common European Framework of Reference for Languages* (CEFR) offers a standardised way of comparing language skills. The three levels *A (Basic User)*, *B (Independent User)* and *C (Proficient User)* comprise two sub-levels (see CEFR 23). In the former nine-year system of the Bavarian *Gymnasium* (which was in place before and up to 2003), pupils taking a standard English course (*Grundkurs*) during their final two years were expected to have mastered level B2 by the end of their school career, whereas the level of the pupils taking a specialised intensive English course (*Leistungskurs*) officially corresponded to C1 – regardless of pupils' actual performance and the marks obtained. In the new eight-year system, by contrast, all pupils (again regardless of their actual English skills) are classified as having attained level B2+ in their general language skills and level C1 in reading (see the *Sonderkontaktbrief* 2007 by the *Staatsinstitut für Schulqualität und Bildungsforschung München*) once they have passed their *Abitur*. After studying English at university in Bavaria for several years, students take the state examination, which is pitched at level C2 (see LPO I, §44/64), that is, the highest possible level recognised by the CEFR.

Surprisingly for such an important educational text, the CEFR seems to use the terms *phonetics*, *phonology* and *pronunciation* indiscriminately, speaking of the “phonetic composition of words”, for which the “sequence of phonemes” is given as an example (CEFR 116), and referring to its section 5.2.1.4 as “explicit phonetic training” (CEFR 153) but giving an overview of “phonological control” in it (CEFR 117; see Table 1).

	PHONOLOGICAL CONTROL
C2	As C1
C1	Can vary intonation and place sentence stress correctly in order to express finer shades of meaning.
B2	Has acquired a clear, natural, pronunciation and intonation.
B1	Pronunciation is clearly intelligible even if a foreign accent is sometimes evident and occasional mispronunciations occur.
A2	Pronunciation is generally clear enough to be understood despite a noticeable foreign accent, but conversational partners will need to ask for repetition from time to time.
A1	Pronunciation of a very limited repertoire of learnt words and phrases can be understood with some effort by native speakers used to dealing with speakers of his/her language group.

Table 1: Phonological control according to the levels in the *Common European Framework of Reference* (CEFR 117)

Even more surprising than the use of terminology in the CEFR is the fact that the hierarchy of the descriptions for “phonological control” can be called into question: thus “Has acquired a clear, natural, pronunciation and intonation” could actually be interpreted as corresponding to a higher level than “Can vary intonation and place sentence stress correctly in order to express finer shades of meaning” – although the former actually corresponds to level B2 and the latter to level C1.

Most striking, however, is the fact that the CEFR makes no difference between level C1 (*Effective Operational Proficiency*) and C2 (*Mastery*; see CEFR 23) in terms of the skills learners should have acquired regarding “phonological control”. This would mean that *Leistungskurs* students who used to enter university after nine years of schooling in the old Bavarian system should have reached the height of their PPP competence already – but experience tells us that students’ pronunciation did improve at tertiary level even in the nine-year system. Two possible reasons may be advanced for this: either the students were actually on level B2 at the beginning of their studies and improved to level C1 or it may be appropriate to include a separate description of the level C2 with regard to PPP competence in the CEFR.

5. What is the role of PPP in teacher training programmes?

Traditionally, PPP is situated at the interface between linguistics and language teaching – and this is also reflected in the different courses treating PPP-related topics, some of which are taught by linguists, while others are taught by English teachers.

Beginning students at the Universities of Erlangen-Nuremberg and Augsburg are briefly introduced to the basic theories, principles and terminology of phonetics and phonology in their introductory linguistics classes. While no specialised courses are offered in Erlangen-Nuremberg during the first two semesters in the *Basismodul*, i.e. the most basic module (see *New degree structures for students of English at the University of Erlangen-Nuremberg*), students of most lines of study in Augsburg are advised to attend both a course on *Phonetics and Phonology*, which is accompanied by tutorials in which IPA transcription is practised, and the course *Effective Pronunciation* in their *Basismodul* (see Modularization guidelines for students of English in Augsburg). All prospective teachers at the University of Erlangen-Nuremberg, by contrast, are expected to attend their specialised PPP classes once they have completed the foundational module (*Basismodul*): the one-contact-hour course in *Phonetics 1 (Theory)*, which lays the theoretical foundation, and the one-contact-hour course *Phonetics 2 (Error Analysis and Treatment)*. Students can choose between British and American English. In addition, future teachers of *Grundschule*, *Hauptschule* and *Realschule* are required to do a third one-hour multi-media laboratory course, *Phonetics 3 (Pronunciation Practice)*, during which participants work individually with the teacher-guided program *Sound Advice*. This computer program, which was developed in Erlangen-Nuremberg and Augsburg and offers training in British and American English pronunciation, places particular emphasis on intonation and stress.

In theory, pronunciation should also be part of the introductory didactics courses which future teachers are required to take at Bavarian universities, but while Erlangen-Nuremberg and Augsburg do cover PPP, many other universities rather focus on grammatical and lexical aspects. University courses in English linguistics may also focus on English phonetics and phonology, for example in transcription classes, state examination preparation courses, courses on varieties of English or sociolinguistics.

In courses other than those specifically directed at improving students' PPP knowledge and skills, incidental training of listening comprehension and of receptive pronunciation skills also takes place – provided that the courses are taught in English (which more and more courses in academic English subjects such as literary or cultural studies actually are). In some language courses, the students may even get specific feedback on their pronunciation, for example when stumbling over a difficult word while reading out a translation text, or when mispronouncing a word while reading out their answers to a grammar exercise. This is important because otherwise they and their fellow students may assume that the pronunciation was correct and might therefore develop a norm for pronunciation differing from that of native speakers (Piske 2012: 53). Explicit correction of productive pronunciation skills should, however, be refrained from in situations where the communicative act clearly takes precedence over formal correctness: students should not be discouraged from speaking spontaneously. Instead, teachers may choose to make notes of pronunciation mistakes and discuss them at the end of a teaching unit or class.

The final examination for future teachers of English in Bavaria is a standardised central state examination. In its written part, students aiming at teaching at *Grundschule*, *Hauptschule* and *Realschule* may choose between linguistics and literature (LPO I, §44). If they choose linguistics, a phonological transcription following the system of the International Phonetic Association (IPA) is an obligatory part of their examination. Future teachers of *Gymnasium*, by contrast, have to sit a written examination in both linguistics and literature (LPO I, §64). In linguistics, they can choose between a task on Old English (involving an obligatory phonetics/phonology task with a focus on sound changes), a task on Middle English (also involving an obligatory phonetics/phonology task with a focus on sound changes) and two tasks on Modern English, which are structured identically. In the Modern English tasks, PPP is also obligatory, requiring

1. the ability to describe and explain the articulation of the sounds and the prosody of English
2. the ability to describe the most important phonological regularities and processes of English (for example word stress, sentence stress and phonotactics)

3. the ability to transcribe the pronunciation of English texts according to Southern British Standard or Standard American using IPA symbols
4. knowledge of the specific phonological and phonetic difficulties for (German) learners of English and basic knowledge of the most important differences between the phonological systems of English and German (*Orientierungshilfe Englische Sprachwissenschaft* 2008).

Phonetics and phonology are thus an integral part of what students have to know about linguistics in order to qualify as teachers.

The requirements for the state examination in didactics in the LPO I (§44/64) are so general that PPP is not mentioned explicitly – but it can be interpreted as an implicit part of the “knowledge of the theory and methodology of communicative English teaching” mentioned in that document, along with lexis and grammar. Prospective teachers of all school types need to take a written examination in didactics, in which they have to answer one out of three tasks. PPP can be avoided by choosing one of the other two tasks.

The examination in “Sprechfertigkeit und Landeskunde/Kulturwissenschaft” (‘fluency and cultural studies’; see LPO I, §44/64) is the only oral part of the Bavarian State Examination. While PPP skills are not tested explicitly, the quality of the students’ pronunciation influences the grade awarded for fluency. Otherwise, PPP plays no role in the assessment of practical English language skills at Bavarian universities.

6. What should we teach our students about English phonetics, phonology and pronunciation?

The guiding principle in deciding what to teach our students about English phonetics, phonology and pronunciation should be the students’ manifold needs – that is, what they need to know in order to

- improve their own English-language skills (as advanced language learners)
- lay the foundations for their future life-long learning on PPP
- pass their final examinations and qualify for teacher training
- become good teachers.

The sooner students learn about PPP, the better. In order to determine, at least for the present, what exactly students need to learn about PPP to become good teachers, we have considered what pupils are expected to know about these areas – and what their teachers should therefore have a good mastery of. Different types of university courses may cater for these needs: thus pronunciation skills can be improved in practical language courses in multi-media laboratories, but also by learning more general principles of pronunciation: knowing about the difference between voiced /z/ and voiceless /s/ makes a big difference – and an even larger one if the usual distribution rules of the plural {S} are taught concurrently: /z/ after voiced sounds, /s/ after voiceless sounds, /ɪz/ after sibilants (Swan 2005: 518). According to Pascoe’s (1987: 429) study of about 200 Bavarian pupils, the voiced /z/ was realised incorrectly in 50-80% of cases. Linking /r/s, the schwa-sound and weak forms were mispronounced in 80-90% of cases, and incorrect realisations of the vowel in *cat* even exceeded 90%. This is particularly problematic in view of the fact that the last three pronunciation mistakes account for many misunderstandings by English native speakers. As a consequence, awareness of likely pronunciation difficulties for German learners, such as

- the pronunciation of difficult sounds – with precision playing a very important role due to the large number of short words and thus also of minimal pairs (see Pascoe 1987: 22-23)
- weak forms
- the reduction of consonant clusters, for example, *fifths* (Tench 1981: 69 and 81)
- frequently mispronounced words, such as *cost*, which tends to be realised incorrectly with a diphthong (see Pascoe 1987: 375-378)
- the discrepancy between spelling and pronunciation (see Pascoe 1987: 16)

is thus not only an examination requirement: university students will also find it useful for improving their own pronunciation and, even more importantly, they are going to need it when teaching their future pupils. Language-specific awareness training corresponds to the desiderata identified by Piske (2012: 53). Similarly, a background in articulatory phonetics can help future teachers understand their students’ pronunciation problems and equip them with remedial strategies. While knowledge about different varieties of English is less

central to the state examination needs of university students, at least future teachers at the *Gymnasium* will need to teach their pupils about different varieties.

One possible approach to teaching PPP to future teachers of English is to place a stronger focus on possible strategies of teaching pronunciation: for example, it may be easier to teach the voiceless dental fricative /θ/ and the voiced alveolar fricative /z/ by relating them to a lisp and the sound a bee makes than by a description of the respective positions of the articulators within the mouth. Furthermore, students could be taught how to use minimal pairs in teaching (for example, by showing and discussing images of a *pan* and a *pen*; see Tench 1981: 56-60 and Celce-Murcia/Brinton/Goodwin 2010). Ideally, at least some courses at university should contain an explanatory PPP part.

In the interest of life-long learning, one of the aims of PPP teaching at university should be to raise students' interest in remaining active in this field and in making use of the possibilities introduced in their courses – that is, both learning strategies (for example Lorenz' 2009 auditory image approach of repeated exposure and speaking along with a recording) and resources such as self-study books (for example Eckert/Barry's 2005 "fun-netics" book for German learners), electronic dictionaries (for example the *Longman Dictionary of Contemporary English* 2009 with sound recordings of whole sentences) or internet sites (for example the *Speech Accent Archive* with numerous recordings of the same text by speakers with different regional backgrounds).

7. Conclusion

Let us now come back to the initial question asked by the beginning student of English, "Do you say /kɑ:/ or /kɑ:r/?": it is actually possible to use both forms. There are several factors which play a role, such as a speaker's variety and the phonetic context of the sound: while rhotic varieties such as American English always pronounce words with a postvocalic <r> (for example, *car*) with the /r/ sound, the pronunciation in non-rhotic varieties, for example many varieties of British English, depends on the phonetic context: if the next syllable or word begins with a consonant or if the /r/ in question marks the end of an intonation unit, the pronunciation is /kɑ:/. However, if the following sylla-

ble or word begins with a vowel and occurs within the same intonation unit (for example, in *My car is red.*), a so-called *linking* /r/ is produced and the pronunciation is /kɑ:r/. One reason for problems with this particular aspect of pronunciation may be that many pupils claim to speak a mixture between British and American English (Herbst 1992: 16). The differences between those two varieties may be blurred by the fact that pupils have different English teachers in different grades, some of whom follow one variety of English and some the other. Raising students' awareness of the variety towards which they tend in their own pronunciation of English should therefore be an important goal of PPP courses at university.

To conclude: although we cannot necessarily expect our students to answer a question such as the one above correctly when they have only just begun their studies, our advanced students should indeed be able to answer it when they are about to graduate. Future teachers of English are likely to be asked such a question by their own pupils – and we as their instructors should teach them what they need to know in order to provide answers.

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