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Learner autonomy: a guiding principle in designing a CD-ROM for intonation practice

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Abstract

Building on the experience of developing a CD-ROM for English intonation practice, this article explores some advantages and limitations of this medium for the teaching of suprasegmentals. Despite their undeniable potential for foreign language learning, computers prove to be rather limited in their feedback to pronunciation, especially in terms of error identification and correction, which calls into question one of their very strengths, viz. that of teacher-independent learning. As a possible solution to this dilemma, the present paper proposes to build into the design of a CD-ROM for intonation teaching the concept of learner autonomy, i.e. transferring to an increased degree responsibility for the learning process from the teacher (computer) to the learner. Drawing on the discussion of autonomy by, e.g. Broady & Kenning (1996) and Little (1999), it is demonstrated how incorporating a metacognitive level (by offering the learner the choice to access intonation in different ways) and a metalinguistic level helps to make the CD-ROM users more autonomous in their learning and equip them with the necessary tools for self-assessment and self-monitoring, which in turn can make up for the lack of computerised diagnostic feedback.

1 Introduction

One of the key advantages of technologies such as CD-ROMs for language learning, no doubt, is their emphasis on learner independence and individual learning (see Kenning, 1996: 121). CD-ROM learning programs enable learners to work independently of a teacher or a classroom, allowing them to decide on their own timing and pace, which provides for a high degree of flexibility in the learning process. Not surprisingly, CD-ROM courses have therefore come to be associated with concepts such as ‘self-instruction’, ‘independent learning’, ‘self-study’ and ‘learner autonomy’ (see Kenning, 1996: 121–22; Windeatt, 1999: 52–53) – terms which will have to be subjected to some scrutiny (see Section 4 below). In the case of teaching spoken language, however,

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we are faced with an interesting conundrum that seems to undermine the alleged independence of the CD-ROM user: given the lack of sufficiently advanced computer-based systems for the automatic detection and diagnosis of pronunciation and intonation problems, despite various promising attempts (see Menzel *et al* 2000; also Aist, 1999 for a general overview), computer feedback, especially to longer stretches of spoken language (i.e. going beyond word level), is often far from satisfactory. The absence of an appropriate correcting mechanism, however, calls into question the concept of learner independence.

The present paper tries to show a possible way out of this dilemma, illustrating the approach taken in the design of a CD-ROM for English intonation practice. It will be shown that by drawing on the concept of learner autonomy (which goes beyond that of mere independence), the issues of learner independence and appropriate feedback are not necessarily in conflict with each other. On the contrary, the lack of sufficiently developed software for automatic error detection can even be turned into an advantage as it can be used to enhance learner autonomy.

Before turning to a discussion of the concept of learner autonomy (section 4) and its relation to learner choice (section 4.1) and feedback (section 4.2), Section 2 provides a brief description of the CD-ROM project and section 3 discusses some issues involved in the teaching of intonation.

2 The project

In Tune with English, the CD-ROM under discussion, is a practical course in English intonation which was developed as part of an EU-funded EDISSON project involving the Open University in the UK, the *Centre National d'Education à Distance* in France and the Austrian Distance Learning Centre. Its aim is to help learners of English at intermediate and advanced level improve their English intonation[1] without the immediate control of a teacher. The CD-ROM, in other words, is designed to suit teacher-independent learning, e.g. for students in distance education.

The overall aim of providing an in-depth introduction to English intonation as well as practice material can be broken down into a number of more specific sub-aims of the CD-ROM:

- to explain and demonstrate important concepts of English intonation
- to help recognise and practise intonation patterns
- to notice regularities of English intonation and make predictions about its form and function
- to help imitate native English intonation patterns
- to raise awareness of the communicative function of English intonation
- to demonstrate how intonation depends on the speech situation
- to engage the user in analysing native speaker intonation and its use in different contexts
- to improve overall listening and comprehension skills.

[1]The term intonation here is taken in its broad sense and is used as equivalent of prosody and suprasegmentals, i.e. including not only pitch movement, but also stress and rhythm, etc.

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3 Intonation teaching and learning: a complex issue

There is no doubt about the high communicative value of intonation, especially for areas such as expressing attitude, negotiating speaker relationships, marking the distinction between known and new information, conversation management (cf. *inter alia* Brazil, 1997; Couper-Kuhlen, 1986; Bolinger, 1989; Cruttenden, 1986: 75–131; Chun, 1988) and, quite generally, for overall intelligibility as is emphasised, for instance, by Celce-Murica *et al.* (1996: 131):

> Learners who use incorrect rhythm patterns or who do not connect words together are at best frustrating to the native-speaking listener; more seriously, if these learners use improper contours, they can be perceived as abrupt, or even rude; and if the stress and rhythm patterns are too non-nativelike, the speakers who produce them may not be understood at all.

Many teachers and educationalists rank the importance of prosodic aspects even higher than that of individual sounds, such as Morley (1987: preface), who expresses a desire for "a focus on the primary importance of suprasegmentals (i.e. stress, rhythm, intonation, etc.) and how they are used to communicate meaning, with a secondary importance assigned to segments (i.e. vowel and consonant sounds)".

However, while the communicative importance of intonation is generally acknowledged and emphasised, teaching it in an English as a Foreign Language (EFL) context is considered to be notoriously difficult (see Celce-Murica, 1987: 11). We are thus faced with the paradoxical situation that, as pointed out by Dalton and Seidlhofer (1994: 76), "on the one hand, there is widespread consensus about the significance of intonation for successful communication; on the other, intonation is the 'problem child' of pronunciation teaching".

The difficulty of teaching intonation clearly lies in "the complexity of the total set of sequential and prosodic components of intonation" (Roach, 1991: 168). This complexity can be found not only in the formal aspect of intonation, involving the interaction of such different components as stress, rhythm, chunking/phrasing (intonation units), pitch movements, but also in the function of intonation. Among the functional properties commonly identified for intonation are, for instance, the marking of grammatical contrasts (e.g. question vs. statements), marking the distinction between given and new information (i.e. information structure, presumed common ground), the marking of speaker relationships (e.g. control), and the expression of attitudinal meanings (e.g. surprise, politeness, uncertainty, etc.) (cf. *inter alia* Couper-Kuhlen, 1986: 110–208, Crystal, 1987; Brazil, 1997). These functions are, of course, not isolated components but are closely interrelated, especially in the case of attitudinal and emotional expression, with other aspects such as the context, speech situation and lexis. To add to the difficulty of intonation learning and teaching prosodic patterns, especially differences in pitch movement, are usually experienced as being more difficult to perceive (and produce) than segmental differences.

Clearly, any learner working on English intonation will require a considerable amount of practice and, what is more, practice in a stress-free environment which gives sufficient room for experimenting and trying out. This is precisely where one of the invaluable advantages of a CD-ROM lies for an area like pronunciation teaching: it allows

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learners to practise at their own pace, in the privacy of their own home. This strong emphasis on learner independence, together with the possibility of visualisation and easy recording, makes a CD-ROM an ideal medium for intonation teaching. The only disadvantage typically encountered with CD-ROMs for pronunciation training, as pointed out above, is that of inadequate or insufficient feedback to a learner's production in terms of automatic error detection and correction. However, this limitation can be turned into an advantage by shifting some responsibility for correction from the computer to the learner, thereby strengthening his/her autonomy as a learner, which ultimately has a considerable impact on student performance. After all, we want students who not only more or less correctly imitate a model given by the computer, but who are also capable of self-judgement and self-monitoring.

In the following section I will look at the terms 'autonomy' and 'learner independence' more closely and discuss the importance of learner autonomy for pronunciation/intonation learning in a CALL context.

4 Independence and beyond: learner autonomy

As pointed out in section 3 , one of the key features of CALL is its emphasis on learner independence. However, this proclaimed 'independence' may take various forms and while terms such as autonomy and independence are sometimes used interchangeably, many educationalists use them to denote different concepts. For a further discussion it is therefore necessary to clarify and delimit some of the terms used here.

As emphasised by Broady & Kenning (1996: 13) and Little (1994: 431; 1990: 7), learner autonomy is often incorrectly equated with terms such as self-study, independent learning or, what Dickinson (1987) refers to as 'self-instruction'. While all these terms are closely related to the concept of autonomy, they are more restricted in nature in that they merely refer to a learning situation which does not require the presence of a teacher. This is what Kenning (1996: 122) terms "physical independence", i.e. learning on one's own without a teacher. Self-instruction, for instance, is defined by Dickinson (1987: 11) as "situations in which learners are working without the direct control of the teacher". 'Independent learning', by comparison, often includes the additional meaning of providing learning opportunities outside the classroom, e.g. self-access centres (Broady & Kenning, 1996: 13).

Autonomy, on the other hand, while being far from a uniformly defined concept, is typically seen as also involving the ability to take charge of one's own learning (see Holec, 1981: 3; Dickinson, 1987: 11; Little, 1994: 431). In Broady & Kenning's (1996: 14) definition it includes not only the dimension of "working without a teacher", but also a 'responsibility' and a 'choice' dimension. The central feature of learner autonomy is clearly that of taking responsibility for one's own learning, i.e. transferring responsibility from the teacher to the learner, which entails making one's own decisions in the learning process and evaluating one's own progress. According to Broady & Kenning (1996: 14) "[t]o become autonomous, the learner requires a number of Learning Management Skills, which in turn presuppose certain types of Awareness". The two types of awareness identified in their Model of Learner Autonomy in Language Learning (*op. cit.* 15) are

[2]One text is a monologue, *viz.* a radio news programme.

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Metalinguistic Awareness, i.e. insight into how language is used and organised, and Metacognitive Awareness, i.e. insight into one's own learning style.

It is clear that such a view of learner autonomy transcends that of concepts such as self-instruction or self-study. While self-instructional modes of learning, in theory, do not *per se* exclude a possible development of greater autonomy on the part of the learner, Benson & Voller (1997: 9) point out that the opposite is more likely to happen as "it appears that learners who are forced into self-instructional modes of learning without adequate support will tend to rely all the more on the directive element in the material they use". Self-study, in other words, does not automatically promote learner responsibility. Nonetheless, self-instruction and autonomy are by no means mutually exclusive concepts but rather opposite ends of a continuum, depending on the degree of responsibility transferred to the learner (see Dickinson, 1987: 9–11). Autonomy, thus, is not an absolute concept and full learner autonomy is an ideal rather than a reality (see Nunan, 1997: 193).

In the development of the CD-ROM for intonation practice under discussion here, the starting point was originally that of mere self-instruction and teacher-independent learning, given the framework of distance education of the project. It soon became apparent, however, that for effective learning to take place and to achieve the aim of improving a learner's intonation in everyday speech situations, the CD-ROM would have to go beyond the rather narrow notion of self-instruction. It would have to actively involve the learner on a metacognitive and a metalinguistic level, thus drawing and building on learner autonomy. While it is clear that autonomy is a multifaceted concept with fuzzy boundaries, the CD-ROM aims for greater learner involvement and, eventually, learner autonomy in at least two areas: one relating to learner choice and learner control, the other relating to the question of feedback.

4.1 Learner choice

Apart from obvious choices relating to pace, time, and amount of practice, which are inherent in the medium itself, the user of *In Tune with English* is also given control over the sequence of instruction. To this end the structure of the CD-ROM is designed in a way which allows the learners to decide on the path they want to take through the various exercises. While there are some suggested predefined routes through parts of the CD-ROM (which can be ignored), the learner is given considerable freedom as to the overall 'itinerary'. Learner control, thus, not only relates to the simplest, 'cosmetic' decisions, a fact lamented by Milton (1997: 239) for many courseware designs, but opens up the possibility of fundamentally different approaches to English intonation, in addition to other functions such as browsing and specific searches (cf. e.g. Peters, 1997: 198).

The CD-ROM structure, illustrated in Figure 1, consists of three basic components, which are connected by hyperlinks as well as accessible via a superordinate navigation map to allow for the greatest possible flexibility.

The 'Text Component' contains various spoken texts, mainly dialogues[2] in the form of short video sequences of about 30–60 seconds which are accompanied by exercises for analysing intonation patterns and discovering regularities of use (cf. e.g. Robinson, 1991: 160–61 on the importance of self-discovery in CALL). The second component, dubbed 'Elements of Intonation', provides detailed explanations of the basic prosodic

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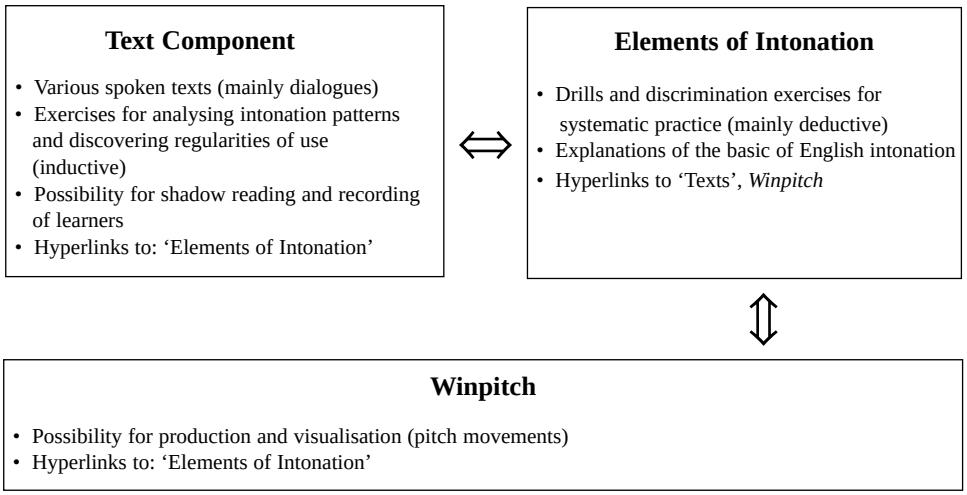


Fig. 1. Structure of *In Tune with English*.

concepts of English, complemented by drill (mainly discrimination) exercises for systematic practice. The prosodic concepts illustrated and explained here relate to both the *form* of intonation (e.g. word stress, sentence stress, intonation unit, tonic, tones) and the *function* of intonation (e.g. expressing emotion/attitude, contradicting, tones and discourse, tones and grammar, social rituals, deaccentuation of repeated lexical items – see section 4.2 for a full 'inventory' of prosodic concepts dealt with). In addition to the two main components, *In Tune with English* also contains a third element, *viz. Winpitch*, a speech visualisation program with the possibility of recording and visualising pitch movement, connected via hyperlinks to selected exercises from Elements of Intonation, but also suitable for free practice (for further information on *Winpitch* see Germain-Rutherford & Martin, 1998).

One of the advantages of handing over some control to the learner is the possibility of personalising the learning process, which can be tailored to the needs and learning preferences of the user. As such it allows for the accommodation of different learner types and learning styles, which is crucial for an area like intonation, generally claimed to be difficult to access by learners (see Dalton & Seidlhofer, 1994: 72–74). The essentially bipartite structure of the CD-ROM offers two fundamentally different approaches to intonation, which are best described as deductive and inductive or analytic and holistic (see also Stern's (1992: 120) 'implicit-explicit' range of procedures for pronunciation teaching and Dalton & Seidlhofer's (1994: 71–72) 'exercise'/'explanation' and 'exposure')[3]. Accordingly, a learner may want to start with a theoretical explanation of a prosodic concept (Elements of Intonation component) and then move on to its practical application in a specific speech situation (Spoken Texts component) in a deductive

[3]This distinction also relates to Entwistle's (1981) differentiation of serialist and holist learning, about which Dickinson (1987: 21) speculates that "serialists will be attracted to the step-by-step procedures required by drills and similar activities, while holists will be happier with activities concerned with language use".

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approach. Alternatively, a learner may prefer to discover regularities of use in a dialogue for him/herself and then compare his/her findings with the explanation given in Elements of Intonation, thus moving from contextualised examples to systematic exercises in an inductive approach.

Apart from individualising the learning process, learner control is also seen as conducive to the development of learner autonomy (see Windeatt, 1999: 56). Having to find one's way around the different activities encourages learners to make their own decisions and, consequently, should make them think about their own learning styles and strategies. Making and reflecting on choices, in other words, may help develop metacognitive awareness of learning, which, according to Broady & Kenning (1996: 15), as discussed in Section 4 above, is one of the essential ingredients of learner autonomy. This metacognitive capacity of the autonomous learner consists, according to Breen & Mann (1997: 135), in the ability "to step back from what they are doing and reflect upon this in order to make decisions about what they next need to do and experience".

4.2 Feedback

The second area which builds heavily on the notion of learner autonomy relates to the question of feedback. As a so-called interactive medium a CD-ROM offers, first of all, various advantages in terms of feedback (see Delcloque, 1995: 108–09). One of these is the possibility of visualisation, as this form of feedback proves to be more effective than mere auditive feedback (see Anderson-Hsieh, 1994). In the CD-ROM under discussion visualisation is exploited in a variety of ways, i.e. as different graphic realisations of suprasegmental phenomena (e.g. compressed and reduced letters for weak forms, letters arranged in contours to represent pitch movements, capital letters for stressed syllables) and the use of *Winpitch* for visualising pitch contours (F_0), intensity and speech signal.

Another obvious advantage of computers for feedback is that of quick and easy digital recording and the possibility of comparing the recorded student version with a pre-recorded original. *In Tune with English* makes use of this facility in two ways. First, a 'language lab' function, in which the student records him/herself taking the part of one of the characters in the dialogue. Second, a karaoke-style function for shadow reading, where the learner speaks along with one of the dialogue characters (whose volume can be reduced), trying to imitate speed, rhythm, and pitch contours.

Both recording and visualisation functions rely a good deal on learner autonomy as learners are required to evaluate their production themselves on the basis of their recording or its visual representation in comparison with a pre-recorded model. Error detection is of course facilitated by visual feedback, but even here the learner has to correctly interpret the visual signal and compare it with the model contour. As such, assessment and error identification depend to a large extent on the learner. Automatic (i.e. purely machine-dependent) assessment of a learner's pronunciation to date can only be achieved by means of a speech recogniser, which compares an utterance with a pre-recorded template, the so-called 'template-approach' (Aist, 1999: 167). Apart from often lacking fine-tuning, this technology merely offers a 'global' assessment of a learner's pronunciation in terms of how close it comes to a given teacher version, with scores usually given in percentages. From a didactic point of view such non-diagnostic feed-

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back is not satisfactory as it fails to provide any information on exactly which pronunciation features have to be improved.

Clearly, machine-based feedback to pronunciation as it presents itself today is largely unsatisfactory, which may call into question the idea of teacher-independent self-study. A possible way out of this dilemma is to ensure the locus of responsibility for instruction is shifted not simply from the teacher to the computer, but on to the learner him/herself. The role of the computer, in other words, needs to be put into the right perspective: it is a learner's tool, not an expert tutor who simply takes over from a human teacher, thus perpetuating the traditional classroom situation. All too often software, as pointed out by Milton (1997: 239), "pretends to the role of a tutor without being able to respond as effectively as a human expert". Nowhere is this discrepancy more apparent than in an area like pronunciation teaching. It is necessary to put the role of the computer into perspective and, despite its undeniable potential, not to overrate its capabilities. After all, it is the computer user who has to do the learning and the sooner s/he takes responsibility for it, the better. This is also pointed out by Milton (1997: 239), who emphasises that

> [t]he distinction between perceiving the machine as a tool rather than the common attempt to model it as an expert tutor lies not only in accepting the current limits of technology but also in embracing concepts of autonomy.

The form of intonation

Word stress
Sentence stress (utterance case)
Stress-timed rhythm
Intonation unit
The most prominent syllable (tonic)
Tones

The function of intonation

Word prominence and discourse
- Repeated words and synonyms
- Contrastive stress

Tones and gammer
- Question and statement
- *Wh*-questions and yes/no questions
- Tag questions
- Echo questions
- Parenthesis
- Apposition
- Lists

Tones and emotion/attitude
- Showing surprise
- Showing interest/sounding enthusiastic
- Showing politeness/sounding friendly
- Showing hesitation/ uncertainty/reservation
- Sounding impressed

Tones and discourse
- Final vs. non-final information

Fixed intonation patterns
- Social rituals
- Idiomatic and other common expression.

Fig. 2. Inventory of formal and functional aspects of English intonation dealt with in *In Tune With English*.

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For the learner, taking responsibility for one's learning of a language presupposes not only a certain awareness of the learning process (i.e. metacognitive awareness, as discussed in section 4.1), but also metalinguistic awareness, i.e. knowledge of how language, or in our case intonation, is organised and how it is used (see Broady and Kenning, 1996: 15). Little (1999: 3) even dubs metalinguistic awareness "The Cornerstone of Learner Autonomy", emphasising the close relationship between the development of explicit (i.e. conscious) metalinguistic awareness and autonomy in foreign language learning. Promoting metalinguistic awareness is therefore one of the key features and explicit aims of *In Tune with English*. Instead of relying on sophisticated machine feedback, the emphasis is on the quality and type of tasks, which provide a step-by-step 'deconstruction' of English intonation into its component parts, thus disentangling individual features of intonation which in real-life communication are connected and simultaneous, and ensuring that the user can correctly identify (i.e. hear) them.

The prosodic features dealt with in the CD-ROM relate not only to the actual form of intonation, e.g. stress, pitch movements, but also to the pragmatic function of intonation in a specific speech situation, e.g. showing surprise, sounding interested/polite. A full list of these is given in Figure 2.

In practical terms, the CD-ROM conveys this metalinguistic knowledge in two different ways: on the one hand, explicitly by direct explanations and illustrations of intonation concepts in the 'Elements of Intonation' component; on the other hand, more indirectly by guided self-discovery in the individual spoken texts. Let me briefly illustrate the two approaches.

While the explanations in 'Elements of Intonation' want to provide concise information about individual prosodic concepts, they, too, aim at actively involving the learner by simple means such as clicking on buttons to activate the audio version of an utterance or visualising its tune and, generally, by letting the learner think first and giving the explanation only after a mouse-click. For instance, the principle of regular rhythm (stress-timing) in English is first illustrated with the help of a poem (Humpty Dumpty) and then transferred to 'ordinary' language by giving a number of sentences with the same rhythm, i.e. the same number of stressed syllables (which are visually highlighted), but a varying number of unstressed ones. Only then a brief explanation is given emphasising the interaction between rhythm and unstressed, and therefore phonetically reduced, function words (so-called weak forms). This principle is also illustrated with the help of a model sentence whose letters transform graphically to visualise the stressed syllables and the reduced unstressed 'weak forms' squeezed in-between. The unit on rhythm is rounded off by a discrimination exercise (Do you hear the phonetically reduced or strong form of a word in a given utterance?) and a matching exercise (Match the rhythmic patterns with the right utterance) for further practice.

In contrast to the 'Elements of Intonation' component, the exercises accompanying the individual dialogues in the 'Text component' require a greater amount of active learner involvement. The theoretical concepts, however, remain somewhat more in the background with the emphasis being on the practical examination of intonation patterns in a specific speech situation. While the actual intonation features focussed on depend on the individual dialogue, the 'text analysis' follows a sequence of suggested steps (which may be ignored though; cf. section 4.1). As a first step the learners are encouraged to familiarise themselves with the speech situation by listening to the dialogue and watching the

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video. A 'mini-dictionary' available in the help section allows the user to check any unknown words. For the subsequent prosodic analysis the dialogue is subdivided into shorter, i.e. more manageable, text units, which can be re-played as often as required. The suggested sequence here is to start with 'rhythm', which is generally more accessible to learners, and then move on to 'melody'. Both units ('rhythm' and 'melody') move from the identification of formal features to functional considerations. In the 'rhythm' analysis, for instance, the user is asked to identify chunks of speech (intonation units) by inserting intonation unit boundaries into the right places (drag and drop function) and to highlight the stressed syllables and main stress (tonic) in each intonation unit. As regards the function of rhythmic patterns, the learner may be asked, for instance, to speculate on why the main stress occurs in an unusual (e.g. intonation unit-initial) position (e.g. for contrastive purposes or deaccentuation of a repeated lexical item). The component of 'melody' analysis, first of all, requires identification of the pitch movement (tone) on the syllable with primary stress (tonic syllable) by selecting from four different possibilities (fall, rise, fall-rise, rise-fall) and dragging the appropriate symbol to the word in question. The functional tasks involve, for instance, discovering regularities of use (e.g. Which pitch movement do *wh*-questions have?), speculating on the communicative effect of different tones on the same lexical item (e.g. *Really* said with rising, falling, rise-falling tone – how does the speaker sound?), or noticing the varying emotions conveyed by different melodies (e.g. does the speaker sound surprised/hesitant/friendly/neutral?).

As can be seen from the above description, the tasks in the 'Text component' focus on individual formal and functional aspects of intonation with a strong emphasis on perception and ear-training. Rather than edging the computer into the role of expert tutor – a role which it cannot fulfil for simple technological reasons – it is used for what it does best: the clear presentation of complex processes by allowing them to be broken down into smaller components, while at the same time its hypertext structure ties up related aspects so that the 'complete picture' is never lost.[4] Isolating individual prosodic features, therefore, does not result in a series of unconnected 'loose ends'. On the contrary, the design of the CD-ROM establishes links not only between individual formal aspects such as stress and pitch, but also links up formal and functional features where possible, e.g. 'tonic' and 'deaccentuation of a repeated lexical item', 'tonic' and 'expressing contrast', 'rising tone' and 'question', 'rising tone' and 'expressing surprise'.

Evaluation of the learner's performance in the individual exercises is greatly facilitated by a limited set of possible answers: either the prosodic feature in question has been correctly identified or not, or the user has correctly selected from a small number of possibilities or not (multiple choice questions). Thus, feedback to each activity can be provided by a simple binary (right-wrong) mechanism, which is linked to an audio-visual signal. In case of a wrong answer the feedback text contains, where appropriate, useful hints for finding the right answer. Moreover, it is possible to give a cumulative score for individual units (given in percentages) for monitoring the user's progress in a particular type of activity (e.g. identification of the intonation units). Most importantly, however, the step-by-step focus on individual features of English intonation conveys, directly or indirectly, the metalinguistic knowledge necessary for self-monitoring

[4]This is ensured by various hyperlinks on the individual screens, but also by way of a superordinate navigation map, which helps to keep an overview.

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(i.e. monitoring one's own production and learning progress) and self-assessment (see Dickinson, 1987: 134–51 on the importance of self-assessment for learner autonomy), which, in turn, are indispensable prerequisites for self-correction. Thus, the CD-ROM helps to enhance learner autonomy not only in the immediate learning situation, but also prepares the learner for real-life situations, where no teacher is at hand.

5 Conclusion

The purpose of this paper has been to highlight some advantages and limitations of CD-ROMs for the area of pronunciation teaching, more precisely the teaching of English intonation, and to demonstrate how this medium can be used more efficiently, not least in view of the limited diagnostic possibilities of this medium for spoken language, by embracing the concept of learner autonomy. By encouraging the learner to make his/her own decisions in the learning process and providing sufficient linguistic and metalinguistic knowledge, the medium provides the learner with the tools necessary for self-assessment and self-correction, which are crucial for autonomous learning. There seems to be a risk that proponents of new technologies may be tempted to replicate and recreate a traditional classroom situation for the user with its typical teacher-dependence by merely trying to substitute the computer for the teacher – a role it cannot satisfactorily fulfil. To fully unlock a computer's potential for language learning a CD-ROM course for intonation is best used not as a teacher replacement but as an expert tool to guide learners on their way to autonomy.

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