Foreign language acquisition and melody singing

Carmen Fonseca Mora

This article considers the value of relating music and language in the EFL classroom. From an ontological point of view, sounds are the roots of both music and speech. Our 'melodic approach' is based on the evidence that musicality of speech has an effect not only on the pronunciation skills of EFL students but also on their entire language acquisition process. A number of suggestions are made to provide the teacher with a range of teaching devices.

Introduction

Hearing is one of the most basic and at the same time enriching capacities human beings possess. It is difficult for us to ignore a sound. Visual input can be easily avoided simply by closing our eyes, but we do not have a similar mechanism for 'closing our ears'. It is possible for us not to 'listen to' something, but we will probably still 'hear' it. We can adapt ourselves to a rhythmic noise, such as the ticking of a clock in a room, to the point where we are not conscious of it; however, we would notice the silence if it stopped. Taking into consideration the pervasive power of sound, we propose a melodic approach to language teaching in which emphasis is given to the melody of language. In no way are we denying the importance of visual input, but our focus will be on giving greater recognition to the beneficial use of modified auditory input in the EFL classroom.

Variety of learning styles

The theory of multiple intelligences (Gardner 1983) pointed out that human beings, potentially and educationally speaking, have many different intelligences and capacities that could be stimulated in the classroom. One of the main implications for teaching of this theory was that students should not only be taught to increase their verbal, spatial, and numerical intelligences, but also to nurture their musical, bodily-kinaesthetic, interpersonal, and intrapersonal intelligences. Clearly, we learn in different ways, and as learners unconsciously establish our own preferred sensory system. While visual learners prefer charts, diagrams, and written material, auditory learners like listening activities, and kinaesthetic learners need to have movement, to be involved physically in much the same way as in drama or role-playing.

In this context the teacher should offer a varied gamut of activities to reach the different types of learners. All the intelligences of our learners should be addressed and developed in the classroom, including musical intelligence, which is highly relevant for language teaching.

Music and language

Linguists define language as an instrument for communicative verbal interaction. However, the Spanish music therapist, Patxi del Campo (1997), asserts that in any oral interaction only 15% of the information issued corresponds to verbal language, while 70% of the message is performed through body language; the final 15% belongs to intonation, the musical character of language. This importance of body language can be easily observed by watching a television debate with the volume turned off. The body language clearly indicates the mood and attitude of the participants, and even their agreement or disagreement with what the other speakers are saying.

Music and language share several features. On the one hand, both stem from the processing of sounds; on the other, both are used by their authors/speakers to convey a message, although language is much more precise than music, whose effect is mainly emotional. On another level, music and language have intrinsic features in common, such as pitch, volume, prominence, stress, tone, rhythm, and pauses. Another shared feature of language and music is that we learn both of them through exposure. No language can be acquired without oral or written input (or visual input, in the case of sign language), and in a similar fashion we acquire our notions of music from what we hear around us—which is why music from other cultures often sounds odd to us when it differs significantly from the patterns of sounds and rhythms to which we have grown accustomed.

Jackendoff (1993) takes for granted that human beings are predisposed for language, music, and vision. He defines language as the capacity of communicating through words, music as the faculty of perceiving sound patterns, and vision as the possibility of seeing the external world. Once we have a set of abstract patterns in our mind, we analyse any new stimulus by accommodating this additional information to our previous knowledge (Ausubel 1968). Our mental capacities hinge on the construction of unconscious patterns in response to visual, linguistic, or musical input, and on our ability to analyse it intuitively.

Jackendoff (1992) also speculates that there is an interaction of faculties to build up our understanding of our environment. Evidence of this can be seen in an experiment carried out with adult native speakers of Spanish (Fonseca 1997). The participants were given a picture and asked to tell a story related to it that included a beginning, a climax, and an ending. They could choose whether to speak in Spanish or English. Before narrating the same story for a second time, they relaxed by listening for three minutes to quiet instrumental music that included water sounds and birdsong. They were then asked to repeat the same story they had told some moments ago. The background music was not switched off while they were speaking, although the volume was turned down. During the second narration they started verbalizing information that had not been coded visually, but rather proceeded from the musical input. They included things that were not in the original picture and, taking the position of an omniscient narrator, they talked about the

characters' feelings. In this way, visual, auditory–musical, and emotional information was encoded linguistically.

Intuitive melodic approach in L1 acquisition

The brain has different ways of processing outside information—different specialized devices, different types of intelligences, and therefore, different kinds of memories. In this connection it is very interesting to note that psychological and linguistic studies reveal how the interaction between music and language acquisition is activated at a very early stage.

Research has shown that a foetus perceives acoustic signals in the womb. Not only does it hear its mother's heartbeats, but it also receives sensory information coming from outside the uterus. The neurophysiologist and educator, Carla Hannaford (1995), describes the studies of Dr Alfred Tomatis which show how five-month-old foetuses respond to phonemes of language, that is to say, to varying vibrations of sound such as the vowel sounds:

> Using fibre optic cameras, Dr. Alfred Tomatis discovered that the foetus will move a specific muscle, in the arm or leg for example, when it hears a specific phoneme. The particular muscle moved varies in each foetus studied, but each time the same phoneme is sounded, the same muscle will move. This early connection of a muscle response to sound suggests the significance of anchoring sensory input with action for learning to occur. This sensory-motor response to phonemes allows the foetus to begin the process of learning language in utero. By twenty-four weeks ... the foetus responds to music by blinking its eyes and moving as though dancing to a beat.
> (Hannaford 1995: 36)

The psychologist P. Hepper concludes after studying the foetal behaviour before and after birth:

> that newborns who had been exposed to the theme tune of a popular TV programme during pregnancy exhibited changes in heartrate, number of movements and behavioural state at birth. These effects could be attributed to prenatal exposure alone and not to postnatal exposure or a genetic disposition, and were specific to the tune learned. (Cited by Odam 1995: 14)

Taking into account these neurophysiological and psychological references we could argue that the sound-learning process and its auditory memory have started before birth, which would mean that sound perception and its analysis are among the earliest processes to develop.

Mehler and Dupoux (1992) were interested in discovering the age at which a child would be able to recognize its mother tongue. They recorded a perfect French/Russian bilingual speaker telling a story in both languages. Two groups of French babies were exposed to the stories: a group of four-day-old newborns and a group of two-month-old infants. Both groups distinguished their language. Mehler and Dupoux concluded that four-day-old newborns were capable of distinguishing the typical melodic contour of their language, but not the words, because

when they were exposed to French-sounding sentences but with invented words, they also recognized it as their language. Linguistic research has shown that each language has its own intonation and its own tonal and rhythmic properties, and that even very young infants are sensitive to these.

Discourse intonation, the ordering of pitched sounds made by a human voice, is the first thing we learn when we are acquiring a language. Later on, it is through interaction that a child picks up not only the musicality of each language, but also the necessary communication skills. In the earliest stage, it is usually the adult who behaves as a model, accommodating her/his speech style to the child's needs, but interacting with older children (brothers or sisters) also seems to be profitable.

The role of 'motherese' appears to be fundamental in the child's process of acquiring a language, not only because of the affective aspects that it offers, as Wallon (1975) points out, but also because of the particular features of this speech. From the very first moment, mothers tend to consider their babies as perfectly prepared to understand them (Snow 1977). Mother talk, also called parental or caretaker talk, is highly repetitive, and full of simple syntactic structures. Slowing down their speech production, mothers give an exaggerated intonation to their utterances, pausing more notarily than in adult-to-adult speech between phrases and clauses.

Feu and Piñero (1996) recorded the interaction between a Spanish boy, Guillermo, and his mother for four months. They studied the sonorous-linguistic code established in this interaction and observed the use of a tonal-linguistic unit they called 'célula sonora' (voiced cell). These auditory units contain syllables where the rhythm of stressed and unstressed vowels conforms to the musical pattern of a word. As an example, they describe Guillermo's vocalization of the Spanish word 'pájaro' (bird). His vocalic production, 'áaaaa-aa-oo' reproduced the ternary rhythm and melody of the word.

Crystal's (1986) research has also provided evidence that prosodic acquisition precedes speech production:

> In one child studied at Reading, aged 1; 2, the phrase *all-gone*, regularly said by the parent after each meal, was actually rehearsed by using the prosodic component only: the child hummed the intonation of the phrase first ..., only then attempting the whole, producing an accurate intonation but only approximate segments ... The phrase could be easily elicited after any meal, but it was not until a month had gone by that the child's segmental output became as stable as his prosodic. (Cited by Singleton 1989: 42)

There is also a special use of melodic contours at school. Children are still involved in the L1 acquisition process at the age of three. Feu and Piñero (1997) studied teacher talk and also observed the use of exaggerated intonation patterns by a Spanish teacher in the classroom when trying to elicit information from a three-year-old group. This

emphatic intonation occurred again when the teacher was explaining how to do a new or more complicated task.

Melodic contours in the EFL classroom

Our direct observation of the discourse of EFL teachers (Fonseca 1997) also reflects this hyperbolic melodic contour, but it only seems to be present when s/he is introducing a new structure and having students repeat or when s/he is acting as a linguistic model while correcting students' pronunciation.

In the use of modified intonation, both mothers and language teachers are acting instinctively. They are unaware of the fact that they are 'singing' at that moment. In both cases, they are expecting some type of repetition. In the same way that babies answer their mothers tonally, EFL students, when asked to repeat, give back the same melody, even if they are unable to pronounce the words correctly. In pairwork activity afterwards, where students have to use the structure just taught, they do not generally use that exaggerated pronunciation because they have interpreted it as a pedagogical tool to help them to pronounce better.

Music and memory

Singing is an easy way of memorizing something. Most of us can probably remember having learnt the multiplication tables with a specific tune. Melody seems to act as a path or a cue to evoke the precise information we are trying to retrieve.

Tim Murphey (1990) defines the 'song-stuck-in-my-head' phenomenon as a melodic Din, as an (in)voluntary musical and verbal rehearsal. Murphey also hypothesizes that the Din could be initiated by subvocal rehearsal. So, for example, we are able to rehear mentally the voice and words of a person with whom we have had an argument. Similarly, while reading the notes taken in a lecture, we will probably rehear the lecturer's voice, while at the same time we can mentally visualize the place from which s/he was talking and even her/his gestures or body movements.

Music seems to leave a particularly deep trace in our memories; this could be due to the fact that it is related to affective and unconscious factors. It could also be related to the hypothesis that it is less energy-demanding because musical perception starts before birth.

Implications for EFL

With the purpose of following a similar process to that of L1, the EFL teacher of beginners, at the early input stage, could consciously give emphasis to the melody and prosodic features of the structure, pattern, or expression s/he is presenting. In order to do that, it is necessary to take the statement and to repeat it several times by giving emphasis to the prominent stresses. By making the rhythmic articulation of the utterance more exaggerated, the intonation becomes more musical. The selection of initial pitch has to be done by the teacher according to his/her singing abilities. The variation of pitch during the oral production of the utterance depends on the speech prosody pattern of each sentence.

It is also possible to use a well-known tune. The opening melody of Beethoven's Fifth Symphony is suitable for questions similar to that of

'What do you do?' or 'Where are you from?', although it would not be appropriated when asking 'Where do you usually go to have a drink in Spain at five o'clock?' This melodic presentation of a structure has a slower tempo than speech, the syllables are lengthened, and pauses between different thought groups become more notable. Teachers adapt their talk to their students' transitional competence while using this technique. The more rhythmic and intonated the utterances we teach are, the more holistic the learning will be. By focusing on rhythm and intonation we help our students to take in the new utterance as a gestalt. By engaging the concentration and motor control of children musically, their attention can be directed away from the tediousness of articulation exercises. Research has also shown that these carrier melodies stimulate the right hemisphere. When we allow students to repeat, we are giving them more time to process the new auditory information using their working memories. Later, of course, they will need to develop their mental grammar of the foreign language they are learning; more logical-analytical activities are essential to help the student to process meaning, usage, and form.

For intermediate and advanced students the melodic approach is still a useful technique when teachers try to improve their students' pronunciation abilities (Gilbert 1993 provides us with excellent examples). Concentrating on the musicality of speech is also a valuable strategy for the EFL learner in listening comprehension activities. Training students to recognize the mood and attitude of the speakers by paying attention to their intonation contours allows learners to retrieve a contextual element they are normally deprived of when they are listening to a tape.

In general, the use of music in the language classroom encourages students to be quiet because it avoids other auditory distractions. Therefore, it is especially helpful to create the relaxing classroom atmosphere needed to develop written composition activities. Music has the ability to change the hearer's mood because it stimulates our imagination. Songs are also useful. Students improve their pronunciation skills while singing, but at the same time the repetitive lyrics in songs have a positive effect on the students' language acquisition level. Songs can be easily remembered, and are therefore an effective way of providing students with lexical patterns that are stored in their minds and that can be effortlessly retrieved during any oral interaction. Expressions such as, for example, 'It never rains in Southern California' or 'Didn't we almost have it all?', also help EFL students to have a handy model in their minds to deduce grammatical information such as —in this case—the position of the adverb.

One of the problems of EFL students is that once the English lesson is over they have not got many possibilities of receiving aural input in the foreign language. Yet students love doing activities related to music in their freetime. When asked about their hobbies, listening to music, singing, dancing, or playing an instrument are very common answers. It is possible to sing and even to remember the lyrics in a language one

does not know at all. Probably everyone can remember a song learnt as a child, the meaning of which did not become clear till some years later. We can encourage students to take advantage of this handy and motivating source of aural input in English.

It can be argued that using a musical approach at the input stage will accomplish several goals: first, verbal practice associated to musical information seems to be more memorable; second, allowing students to give a choral melodic repetition of the new language just taught lowers their anxiety filter; and third, by strengthening their musical memory, the appropriate foreign sounds will be stored in the students' long-term memory, and thus be accessible for subvocal rehearsal.

From a more general point of view, music and musicality of speech in language teaching provide a rich-sounding environment. This means that the melodic approach is at least a plausible educational alternative that enhances the EFL learners' awareness of sounds, rhythms, pauses, and intonations. But its use can also be interpreted as an indicator of how much teachers cater for the needs and interests of their students.

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The author

Carmen Fonseca Mora teaches English at the University of Huelva in Spain. Her research is in the area of the relationship between language and music in the EFL classroom. She has worked as a primary teacher and as a teacher trainer in Spain. Her current interests include the acquisition of prosody in L1 and L2, self-access learning, and the teaching of oral skills.
Email <fonseca@uhu.es>