

1 Arguments for the Input of Spoken Versions of Nursery Rhymes in the English Classroom

1.1 Commercial Aspects

Most commercial recordings of nursery rhymes¹ for children and for schools offer sung versions rather than spoken renditions of the same material as can be established by even a casual glance of nursery rhymes on offer on the internet. This state of affairs is no doubt partly driven by both commercial factors and cultural expectations. The customer may well feel ‘cheated’ even if a highly gifted speaker were ‘merely’ to recite rather than to sing nursery rhymes. From a pedagogical point of view, it will be argued in this paper that the prevalence of sung versions over their spoken equivalents is regrettable because there is a wealth of important supra-segmental features contained in spoken nursery rhymes such as weakening, pitch prominence and melody (in the spoken language) which can be absorbed by the learners in a both enjoyable and effective fashion.

2 The Importance of Rhythm

¹ For the purpose of this article which is not a taxonomy of children’s rhymes, the term *nursery rhyme* is used in its broadest sense to refer those poems that typically appear in anthologies of nursery rhymes such as in the *Puffin Book of Nursery Rhymes* as quoted in the bibliography. (This broad definition would include shorter ballads, lullabies and cumulative poems.)

The unifying element for embedding these features of connected speech is rhythm, which necessitates these supra-segmental aspects almost, as it were, as a by-product. As Schreuder (2006) argues, rhythm is a very basic aspect of human activity:

Rhythm is everywhere, in the world within us and in the world around us. Rhythm is in our heartbeat, our breathing, and our stride, but also in the tides of the sea, the seasons and the movements of the earth itself. These are all movements in a rhythmic fashion. It turns out to be really hard to do things non-rhythmically: when people are asked to tap their fingers on the table irregularly, some recurrent pattern will appear (Fraisse 1982). This all suggests that rhythm is at the heart of nature, at least, in natural events in which time, movement, or visual patterns are involved. Language and music are just two of these rhythmical behaviours. (Schreuder 2006: 33-34)

Yet, despite the importance of rhythm and thus metre, there have been relatively few studies carried out in this vital area as noted by Pöppel & Turner (2001):

The subject is poetic meter, a universal human activity, which despite its universality and obvious importance in most human cultures, has received very little attention from humanists, except for the studies of a few literary prosodists, and virtually none at all from science. (Pöppel & Turner 2001: 1)

Based on neurobiological investigation, Pöppel and Turner argue further that rhymed or metered verse involves both halves of the brain and thus improve memory:

By means of metrical variation, the musical and pictorial powers of the right brain are enlisted by meter to cooperate with the linguistic powers of the left; and by auditory driving effects, the lower levels of the nervous system are stimulated in such a way as to reinforce the cognitive functions of the poem, to improve the memory, and to promote physiological and social harmony. (Pöppel & Turner 2001: 19)

The minimum recognizable particle of sound is 0.3 seconds. Interestingly, but not surprisingly, this corresponds to the length of a syllable. Similarly, the brain processes sound on average in impulses of 3 seconds, needing a few milliseconds

for this process. This length corresponds roughly to a LINE². The brain likes predictability and the (creative) predictability produced by rhythmical metre helps us to acquire new information easily. In biological terms, Pöppel and Turner argue that “the brain possesses built-in sites for the reception of opioid peptides such as enkephalin – the endorphins - and also other pleasure-associated neurohumors such as the catecholamines.” (Pöppel & Turner 2001: 4). They argue further that the human information-processing can be described as *kalogenetic*³. As metered poetry is highly *kalogenetic* and as rhythmical or metered speech trigger off these chemical reactions, the brain acts as a self-rewarding system and thus the learning process becomes highly pleasurable. The pedagogical implications are many. The authors argue that rhythm, metered verse (and thus by implication nursery rhymes for younger children) should be used much more in the classroom:

The implications for education are very important. If we wish to develop the full powers of the minds of the young, early and continuous exposure to the best metered verse would be essential; for the higher human values, the cognitive abilities of generalization and pattern-recognition, the positive emotions such as love and peacefulness, and even a sophisticated sense of time and timing, are all developed by poetry. (Pöppel & Turner 2001: 20)

² The capitalised *LINE* is now used as technical term as defined by Pöppel & Turner:

The fundamental unit of metered poetry is what we shall call the LINE. [. . .] Most remarkable of all, this fundamental unit nearly always takes from two to four seconds to recite, with a strong peak in distribution between 2.5 and 3.5 seconds. (Pöppel & Turner 2001: 6)

³ This is a word coined from the Greek (κάλος), representing beauty or goodness and from (γένεση), *genesis* and so refers, in this case, to the fact that nursery rhymes have a pleasing aesthetic aspect.

2.1 Weakening

In addition to the affective and thus motivating power of rhythm, it will be shown that nursery rhymes subliminally produce desired aspects of connected speech such as weakening. As any teacher of English as a foreign language well knows, weak forms together with the appropriate use of the schwa cause considerable difficulties for the L2 learner. The brief dialogue below created for the symposium illustrates the prevalence of weak forms in the spoken language and shows how the use of the strong form (fɪʃ ænd tʃɪps) for the usual weak ('fɪʃn'tʃɪps) has a very different semantic import. In the dialogue, Dave expresses outrage at his fellow sufferer in poverty for having the audacity to order both items (fɪʃ **ænd** tʃɪps!!!), but is relieved when Jack offers to pay for these otherwise expensive items for himself. Dave, who is now pacified, returns to the usual unobtrusive weak form usage:

dev: əm dʒʌst əf tə ðə nju: 'fɪʃnt'ʃɪp ʃap ɪn brʊk stri:t. 'kənə brɪŋ 'eniθɪŋ bæʃ fər 'eniwʌn?

dʒɪm: ʊ dʒʌst ə 'bæɡə'tʃɪps fə mi:, pli:z.

bil: aɪm nɒt 'hʌŋɡrɪ, ən seʊ aɪl dʒʌst hæv ə'kænə'kəʊk.

dʒæk: aɪl dʒʌst hæv 'fɪʃn'tʃɪps, pli:z

dev: fɪʃ **ænd** tʃɪps !!!

dʒæk: jɛs, ðæts wɒt ə sed: 'fɪʃn'tʃɪps - dont 'wʌrɪ, aɪl peɪ fə ðəm.

dev: ʊ ðæts ɔ:l raɪt ðen - sʊ, ə'kænə'kəʊk, ə 'bæɡə'tʃɪps ənd wʌn lət əv 'fɪʃn'tʃɪps.

[Weakened phrases are highlighted]

This phenomenon of weakening is very common in the spoken (though not sung versions) of nursery rhymes. A good example of this process can be seen in *Hey Diddle Diddle* as set out below with the weakening highlighted in the phonemic version:

heɪ 'dɪdl, 'dɪdl
 ðə kæt ən ðə 'fɪdl
 ðə kaʊ dʒʌmpt 'əʊvə ðə mu:n
 ðə 'lɪtl dæg lɑ:ft tə si: sʌtʃ fʌn
 ənd ðə dɪʃ ræn ə'weɪ wɪð ðə spu:n

It can be seen from this example that the nonsensical formulation *Hey Diddle Diddle* produces a clear metrical pattern:

heɪ 'dɪdl 'dɪdl

● ● ● ● ●

This in turn enforces a rapid rendition of the second line on account of the strength and simplicity of the basic rhythm together with the fact that the second line has an extra syllable and that English is an isochronous (equally timed) language:

ðə kæt ən ðə fɪdl

● ● ● ● ● ●

Isochronicity requires the linking phrase *and the* (ən ðə) to have minimal weighting and thus this linking phrase has to be spoken very quickly. Weakening is automatically involved with the result that the primary school pupils will be able to hear and produce weak forms without any conscious awareness of the supra-segmental phenomena involved in this process. All the teacher has to do is to concentrate on the rhythm. This could be reinforced with the input of a percussion instrument into the lesson and also by encouraging the children to tap out the rhythm when reciting the nursery rhyme. As this linking phrase is obviously very frequent in English, it is a good idea for the teacher to invent similar phrases all containing the same rhythmical pattern for further reinforcement. An example is given in the non-sense riddle below invented for the purpose of illustration:

The **cup** and the **kettle**
The **cat** and the **cattle**
The **rat** and the **rattle**
The **bat** and the **bottle**
The **wet** of the **wattle**
The **sack** and the **saddle**
The **pad** and the **paddle**
The **kiss** and the **cuddle**
The **pond** and the **puddle**
The **top** of the **tunnel**
The **fan** and the **funnel**
The **map** and the **model**
The **duck** and the **waddle**
The **top** of the **middle**
The **end** of the **riddle** (Stressed syllables are highlighted)

Similar cases of weakening which fit into the metrical patterns can be introduced as in the above example where there are four instances of the *of the* (əv ðə) weakening phenomenon. The quoted list should be said with increasing speed so that the rhythmic elements are highlighted together with the resultant reinforced weakening. The teacher could, of course, produce his or her own list which may, in turn, act at the same time as a vocabulary revision exercise. Thus if a recent topic had been animals together with their offspring, then combinations such as *the cat and the kitten*, *the dog and the puppy* and *the duck and the duckling* could be used in a similar way as long as attention is given to the repetition of the same metrical pattern. It would also be good pedagogical practice to choose nursery rhymes with due regard to their phonological features when deciding which nursery rhymes are to appear and in what order. Thus the same supra-segmental phenomena could be reinforced by other nursery rhymes. In the above case

(ænd >ən>n), nursery rhymes such as *Oranges and Lemons* ('brɪndʒəzn'lemənz) , [Key weak forms are highlighted] *Jack and Jill* ('dʒækndʒɪl) and *Girls and Boys Come out to Play* ('gɜ:lznbɔɪz) would immediately suggest themselves as logical continuants in a series stressing the weakened conjunction *and*. As a sequel, other examples of weakening could be used such as the shortening of the preposition *of* (vʌ > əv) in “Sing a song of sixpence/A pocketful of rye”, (sɪŋ ə sɑŋ əv sɪkspəns/ə pəkɪt fʊl əv raɪ) or as in the first two lines of *Pop Goes the Weasel*: Up and down the city road/In and out of the *Eagle* (ʌpndaʊn ðə sɪtɪ rəʊd/ ɪn ən aʊt əv ðɪ i:gl).

2.2 Pitch Prominence

In the literature there are many different methods of classifying pitch prominence or *accenting*. The notion of a nuclear tone (the last stressed syllable in a nuclear unit) is favoured in many course books as well as in UCL⁴ courses for phonetics. The problem with this taxonomy is that it only allows for a dual hierarchy of pitch prominence and often the last stressed syllable is by no means the most stressed syllable. At the other extreme, Schreuder (2006: 22) and Hayes (1995: 72) favour open-ended grids to represent pitch prominence, which allow for an open-ended hierarchy of syllable weight. For pragmatic reasons within this analysis, however, a three-way hierarchy is to be preferred – unstressed (small dot), stressed (middle dot), and strong/main stress (large dot). This system could also be used for primary school children who will then be able to visualise the rhythm before being

⁴ University College London: (University College London is the largest centre for phonetics in the UK.)

encouraged to tap out the rhythms on their work tables or desks. This point can be made clear in the following line taken from cumulative rhyme *The House that Jack Built*:

● ● ● ●● ● ● ● ● ● ● ● ●
This is the malt that lay in the house that Jack built.

It can be seen in this line that the monosyllabic noun *malt* receives the greatest stress in the whole line as the introduction of *malt* constitutes new information. Conventionally, most of the other content words in this line (*lay, house, Jack*) have secondary stress, whereas the function words (*is, the, that, in*) remain unstressed. This point is further highlighted in each of the subsequent lines of this cumulative poem as, for example, in the line that follows the above example:

● ● ● ●● ● ● ● ● ● ● ● ● ● ● ● ●
This is the rat that ate the malt that lay in the house that Jack built.

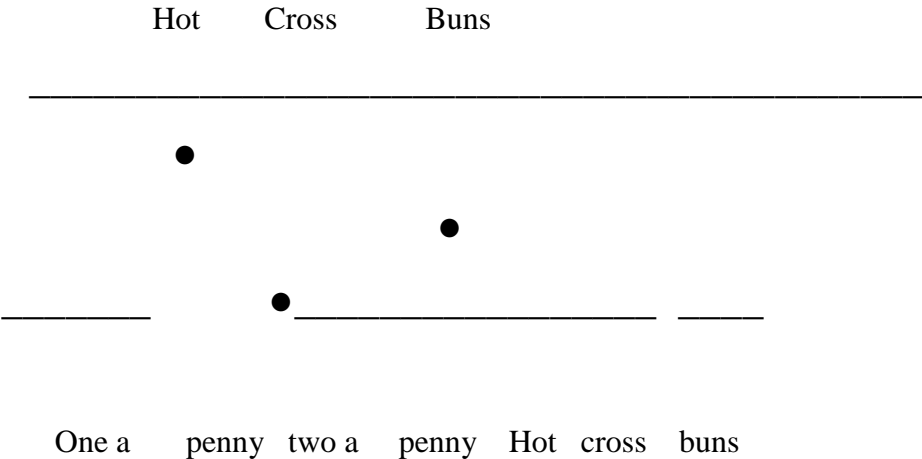
Being new information, the monosyllabic noun *rat* takes the primary stress whereas the known entity of ‘malt’ is now ‘demoted’ to secondary stress in this scheme. As a result of this, a fundamental aspect of accenting will have been conveyed emphatically and yet subconsciously to young learners.

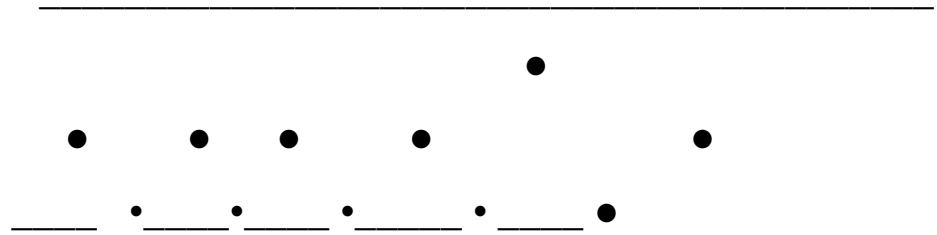
Cumulative poems provide an ideal way of conveying stress patterns in English. The rhythm demands very heavy stress for the syllable containing new information. Even if this stress is exaggerated, it will function effectively within the poem’s rhythmical patterns. Some versions of this example such as in the compilation quoted in the bibliography have the nouns replaced by (small) pictures. These are very useful for young learners of English, as the visual element vividly illustrates

the phenomenon that in English content words receive much greater accenting than function words. The corollary of emphasising strong stress within the various LINES when reciting cumulative rhymes is that the function words will be subject to weakening on account of both the rhythm and English isochronicity, and so this phonological feature as described in 2.1 will be reinforced in the learners' subconscious assimilation of supra-segmental features. It is now evident that some of the basic processes involved in accenting can be conveyed in this highly assimilable fashion.

2.3 Melody

Sung versions of nursery rhymes are not to be entirely excluded from the second language primary school curriculum as they can sometimes reinforce the spoken rhythms as is the case with nursery rhymes such as *Hot Cross Buns*, but the spoken version should take priority over the sung version and it will then be seen how the two versions are connected. The spoken version can be represented as below with a three-tonal scale (high, mid, low) and with three levels of stress as represented by the dot size:

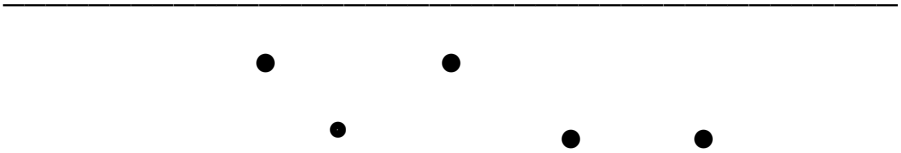




It can be seen that a lively and appropriately spoken rendition of this rhyme as set out above corresponds closely to the sung version. This is the case for most nursery rhymes as the melody is usually derivable from the rhythm together with the spoken melody, but as the set music has precedence in the sung versions over the spoken rhythm, many features of connected speech are lost. Other examples of a close correspondence of the spoken melody to official sung version include *The Bells of London*, *Polly Put the Kettle On* and *Sing a Song of Sixpence*. However, if the teacher concentrates primarily on the spoken form, then the melodic version need not cause undue interference and can be used as an extension exercise as long as the rhythmical aspects take precedence over the sung melody. (This does unfortunately not always apply to some commercial CD's of nursery rhymes sung by children with very poor diction.)

Another interesting example spoken melody is provided by *Baa Baa Black Sheep* where the low rise of a polar (yes/no) question is contrasted with the emphatically definite high fall answers:

Baa baa black sheep have you any wool?



Yes, sir, yes, sir, three bags full

One for the master, one for the dame

And one for the little boy who lives down the lane

Other interesting spoken melodies are given in the list below compiled for this purpose with comments in note form for the sake of brevity:

(a) dɪŋ dɑŋ bɛl, 'pʊsɪz ɪn ðə wɛl (Same melody in the first line as *Hot Cross Buns*, but with a different continuation ending in a highly accented final syllable)

(b) 'pʊsɪ kæt, 'pʊsɪ kæt/ wɛə hæv ju: bi:n (Wh-Question – rising from low to high with a final high fall tone, followed by a sequence of similar wh-questions together with high fall responses)

(c) 'hu: kɪld kæk 'rɑbɪn/ aɪ sɛd ðə 'spærəʊ (Wh-Question – rise fall – followed by high fall answer)

(d) θri: blaɪnd maɪs/ si: haʊ ðeɪ rʌn/ ðeɪ ɔ:l rʌn 'ɑ:ftə ðə 'fɑ:məz waɪf (Contrast of very slow and low fall in the first two lines followed by a high fall third line spoken very rapidly for the sake of isochronicity)

(e) 'lɪtl bɔɪ blu:/ kʌm bləʊ ʌp jɔ: hɔ:n (Slow vocative phrase followed by faster high-fall command)

(f) 'lʌndən brɪdʒ ɪz 'fɔ:lɪŋ daʊn (High fall rhythm reflecting the sense of the verse; this aspect can be reinforced by high fall hand movements to be imitated by the class)

(g) meɪrɪ hæd ə lɪtl læm/ɪts flɪ:s wəz əz waɪt əz snəʊ (This is such a classic regular rhythmic pattern (iamb/trochees) that the ‘poem’ can be recognized by native speakers from the rhythm alone)

(h) 'lɪtl mɪs 'mʌfɪt/ sæt ʌn hə 'tʌfɪt/ 'i:tɪŋ hə kɜ:ðz ʌn weɪ (Narrative iambic/trochaic rhythms – this can act as reinforcement to (g) as this verse displays a similar rhythmic and melodic pattern typical for narrative poetry.)

(i) lu:sɪ 'lʌkɪt lʌst ə 'pʌkɪt (Narrative iambic rhythms - low fall, but with more rapid rhythms than in *Mary Had a Little Lamb*)

(j) baɪ baɪ 'beɪbɪ 'bʌntɪŋ/ 'dædɪz ɡʌn ə 'hʌntɪŋ (In the first line, the high fall melody for separations can be reinforced by waving the hand in a high fall movement to gesture a departure from a child)

3 Conclusion

It has been shown in this paper that an input of rhythmically spoken nursery rhymes into the L2 curriculum for young learners of English is not merely ‘a good

thing' but a desideratum scientifically based on neurobiological as well as phonological grounds.

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