

## **A CHILD'S NEED FOR MUSIC, SINGING AND RHYME**

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Some issues ago I enthused about the benefits of singing during infant massage classes. Since then I have had the opportunity to learn more about the positive affects of music and singing; why babies are so responsive to these mediums and how they actually have an impact on the development of a child. So, I thought I would share some of this information with you.

As I am sure you are all aware that music forms part of the structure of a society; and nursery rhymes are entrenched in history and form part of a culture's linguistic customs and traditions. It is therefore not surprising to find that music is crucial for a child's social development (Cross, 2005).

Not only can music enhance social development, but may actually have a physiological impact. For example, playing music to premature babies (31 weeks gestation and beyond) has a positive effect (whilst the music is being played) on their heart rate, state of arousal, expressions of pain, oxygen saturation levels (Kisilevsky et al, 2004). Many of you will know the 'Music for Dreaming' CD, which features the Brahms lullaby and other calming tunes, which is particularly popular in infant massage classes and for use in neonatal units worldwide – this is because the Brahms lullaby is specifically noted to return heart rate and state of arousal to baseline (Kisilevsky et al, 2004).

From birth (and this includes many premature babies as well), a baby is capable of communicating and actually become involved in a dialogue with their carer; particularly their mother, whose voice:

- Is the right pitch and melody to keep the baby's interest in a 'conversation' (Trevarthen & Malloch, 2002; Welsh, 2005)
- Is familiar to the baby because they become used to the voice whilst in utero and because they are biased towards sounds they experienced in utero (Welsh, 2005).

However, it is not useful to pop on a story-time CD, or nursery rhyme CD and leave a baby to it, because a baby needs to see the 'singer'/'speaker' as well as hear them. When they can see and hear them, they become more attentive and are able to calm their bodily movements (Welsh, 2005) because they are able to interact face to face with their carer.

The synchronicity required for this early communication can be likened to musicians playing together who need to be closely attuned to each other i.e. watching, being aware of others, acting in accordance with others, so to perform in a synchronised manner (Sawyer, 2005), and so too does a baby and parent. From the parent's point of view, this will greatly enhance their understanding of their baby's cues; and for the baby, they begin to learn from the experience and interpret their parents' emotions and behaviour towards them. This '*interactional synchrony*' facilitates infant-parent interaction (Sawyer, 2005). This of course occurs when a parent massages their baby, but can be greatly enhanced if they sing to their baby as well.

### **Music And Speech – Close Relatives?**

Throughout history, music has been regarded as a form of communication (Thaut, 2005). In fact both music and language are considered to be '*communicative mediums*' (Cross, 2005).

Generally, communication between infant-parent is musical or 'proto-musical' (Cross, 2005) by nature because it includes pitch contours, periodic rhythmic timing, turn-taking, links between sound and movement. The 'proto-musicality' displayed by a baby is deeply entwined with early language development, or '*proto-linguistics*' (Cross, 2005) for much of the child's early years. A baby's babbling has pitch and tone and rhythm, all of which are key elements of music and language. Babies have the ability to imitate simple rhythms long before they develop speech (Goddard-Blythe, 2005).

### **Singing And Speech**

There are distinguishable acoustic features between singing and speech (Welsh, 2005), such as, pitch range, temporal proximity, timbre, harmony. However, babies and young children tend not to make a distinction between the two (Welsh, 2005). When babies are 'chatting', the sound is usually very melodious; as if they are

singing a song that they do not know the words to yet (Goddard-Blythe, 2005). This is actually the early stages of a vocabulary bank being constructed. (Welsh, 2005).

In response to a baby's need to sing when 'chatting', it is common for carers to reply accordingly, using infant-directed speech ('motherese' or 'parentese'). Infant-directed speech is, in fact, very similar to infant-directed singing (Welsh, 2005), such as lullabies and nursery rhymes, because the acoustic features of both are simple, repetitive, high pitched, expressive, ritualised, slow tempo.

## **The Benefits of Music and Singing in a Nutshell**

**Thurman & Welsh** (2000) believe that music and singing affects the overall functioning of the:

- Nervous system
- Endocrine system
- Immune system

**Thaut** (2005) argues that the critical aspects of timing and sequencing within music and rhyme may positively affect the child's

1. Attention
2. Ability to make decisions
3. Memory

**Goddard-Blythe** (2005) believes:

1. That music:
  - Contributes to brain development
  - Significantly improves verbal memory
  - Acts as a springboard for other skills to be developed
  - Is a powerful tool for supporting learning
  - Develops left-hemisphere abilities
2. That singing:
  - Develops fine muscle coordination
  - Involves the training of motor skills
  - Improves sound, rhythm and pattern recognition

- Can help the development of the inner ear, in relation to sounds of speech and written language
- Links motor skills, sounds and visual images that are essential for reading and writing skills
- Involves both the right and left sides of the brain

I am sure you will all agree that there is enough evidence to indicate that talking, singing and enjoying music with babies and children can only enhance infant – parent interaction and communication – not to mention help a child towards reaching their full potential.

## **Bibliography**

Cross, I. (2005) *Music And Meaning, Ambiguity And Evolution* In Miell, D. MacDonald, R. & Hargreaves, D.J. **Musical Communication** Oxford University Press Oxford

Goddard-Blythe, S. (2005) **The Well Balanced Child** Hawthorn Press Stroud

Kisilevsky, B.S. Hains, S.M.J. Jacquet, A.Y. Granier-Deferre, C. & Lecanuet, J.P. (2004) *Maturation Of Fetal Responses To Music* **Developmental Science** Vol. 7 Iss. 5

Sawyer, R.K. (2005) *Music And Conversation* In Miell, D. MacDonald, R. & Hargreaves, D.J. **Musical Communication** Oxford University Press Oxford

Thaut, M.H. (2005) *Rhythm, Human Temporality, And Brain Function* In Miell, D. MacDonald, R. & Hargreaves, D.J. **Musical Communication** Oxford University Press Oxford

Trevarthen, C. & Malloch, S. (2002) *Musicality And Music Before Three: Human Vitality And Invention Shared With Pride* **Zero to Three** Vol. 23 No. 1

Welsh, G.F. (2005) *Singing As Communication* In Miell, D. MacDonald, R. & Hargreaves, D.J. **Musical Communication** Oxford University Press Oxford