

The Body and the State of Affect as Starting Points in Music Therapy

Specific music therapeutic interventions for children suffering from severe contact deficiencies, especially autism

Karin Schumacher and Claudine Calvet, Berlin

Abstract

Affect regulation is an important theme of early childhood. Neurobiological disturbances in children can lead to difficulties in the area of affect attunement between child and caregiver, and are therefore the most common causes of developmental disturbances. We use „caregiver“ for Stern's term of the „Other“ and also for parents and other adult persons, who are important for the care of the child. Affective contact disturbances, which are the main traits of Autism-spectrum – disorders (Kanner 1943), can be treated in music therapy through body – centred interventions. The understanding of music as in „Elemental Music“ (C.Orff 1964), enables the therapist to involve the child's body as starting point of his interventions. Appropriate musical forms of playing, as in early mother-child games, help to regulate and shape the affects. With the help of the so-called „AQR-tool“, which has been developed by K. Schumacher and C. Calvet to evaluate the quality of relationship, the child's physical –emotional expression and state of development, as well as the therapist's intervention, can be analysed and discussed.

Keywords: Affect Regulation - Music Therapeutical Interventions – Autism Spectrum Disorder - AQR Tool – Elemental Music

Introduction

The insights into developmental psychology as presented here do not only apply to work with children suffering from severe developmental disorders, but also to other cases in which disturbances are thought to have occurred within the first year of life. This is the time in which the child develops so-called "joint attention" and an understanding for language. We assume that specific music therapeutical interventions can treat persons with incapacity or impairment who are not yet able to develop symbolic understanding. The inborn ability to perceive affects with all the senses enables the child to experience other people emotionally, from birth and the whole of its life. All affects, however, must at first be regulated through the caregiver. Affect regulation is therefore the central theme of development in early childhood. If positive sensations of affects are attuned and regulated with the help of a sensitive caregiver, the emotional - cognitive development can be stimulated. Music and specific interventions of music therapy have the characteristic to share feelings at the same time with an other person. D.N.Stern calls this phenomenon "interaffectivity" as the basis for interpersonal capacity as well as the springboard for development of language (Stern 1985/2000) and higher mentalisation functions. The body and the state of affect are the starting points of specific music therapeutical interventions, if the capacity of vocal-prespeech and instrumental expression are not given. From the perspective of developmental psychology, the child's body, his movements, even his breath must be the focus of the intervention.

With the help of the so – called „**PEQR –scale**“ (physical-emotional **q**uality of relationship) we focus on the child's physical-emotional quality of relationship. This scale is one of the 4 scales of the „**AQR-Tool**“ (assessment of the **q**uality of relationship). This tool illustrates an assessment instrument devised by the developmental psychologist Claudine Calvet and the music therapist Karin Schumacher (Schumacher, Calvet, Reimer 2011/ 2013). With the help of these scales we assess the child's state of affect and thus give an indication as to the appropriate intervention. With the help of a physical-musical "language" the therapist can "respond" to the child's unbalanced, erratic and frequently extreme affects. This makes a dialogue possible and initiates a positive development. The other three scales focus on the child's vocal pre-speech and instrumental expression, as well as the interventions of the therapist. Seven different qualities of relationship are distinguished. This modi (modus means the way to communicate)

follow the logic of Stern's layer model of development (Stern 1985/ 2000) and Srouf's model of emotional development (Sroufe 1994) .

The **7 modi** are:

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|----|---|
| m0 | Lack of Contact / Rejection of Contact |
| m1 | Sensory Contact / Contact-Reaction |
| m2 | Functionalizing Contact |
| m3 | Contact to Oneself / Self-awareness |
| m4 | Contact to Another / Intersubjectivity |
| m5 | Relationship to Another / Interactivity |
| m6 | Joint experience / Interactivity |

These seven modi, however, need not necessarily occur in continuous gradation since development is not always a linear process (Rauh, 1997). Each modus has specific characteristics, by which we assess the specific modus of relationship. The focus of observation in each modus is:

- **intra-personal and inter-personal** relationship, which means the development of one's own body awareness and the ability to be in physical contact / exchange with the therapist
- **physical contact** describes the acceptance / desire of the child to be touched, to be held, to be rocked, and to have active physical contact
- **affect** can be seen in facial expression and physically observable forms of behaviour
- **eye contact**, whereby the quality, the type and duration of eye contact to the therapist are assessed.

The following 7 modi are here presented and illustrated with the help of short case examples on the basis of developmental psychological knowledge.

Modus 0 Lack of Contact/ Contact Rejection

Intervention: Surrounding / musical space

The basis of emotional development is the processing of perceptions provided by stimuli. If the innate ability for amodal perception and transmodal transference is disturbed, symptoms of severe developmental disorders occur, such as the failure to take up eye contact, the lack of physiognomic perception, stereotype functioning, as a protection from stimuli and affect dysregulation.

Case example: Max

Max sits with his back turned to the therapist, and lets small pieces of paper repeatedly fall through his fingers. The music therapist improvises on a metallophon, music that should create a musical atmosphere.

Methodical advice: The child's stereotypical behaviour ought to be accepted and should not be suppressed on account of it being disturbing. A child should never be forced to take up contact. The therapist creates an atmosphere which should reach the child affectively, but does not directly aim at changing its behaviour. The child should be involved in the musical atmosphere, without being directly in focus with his movement, state of affect or activity. The therapist's way of playing has no demanding characteristic, and is not intended to lead to an interpersonal, interactive relationship. The aim is to musically envelope the child's "So-state", as it were „surrounding“.

Modus 1 Sensory Contact / Contact Reaction

Intervention: Connecting perceptions

The ability to process provided stimuli in a meaningful way is the precondition for "perceiving the emerging self" (Stern 2000). Successively differentiating self-perception is considered to form the basis for establishing interpersonal relationships. The caregiver reacts intuitively and at first helps the child to integrate

different sensory stimuli („crossmodal perception“, Stern 2000). He makes the child's movement audible so that the rhythm and the dynamic of its movements is exactly attuned. The child's reaction is often a glance to the source of this attuned music. A positive affect can arise.

Case example: Florian

Florian jumps excessively in a stereotypical way on a trampoline. The therapist stands behind him, follows the stereotypical movement and improvises a melody to the rhythm of the jumping. In this way she supports Florian's need for movement and makes the movement audible. The sensation of being moved in accompaniment of a melody that is sung out loud leads to a physical-emotional synchronisation, which in turn triggers a short positive contact reaction. When the singing and jumping are over, the child's facial expression becomes serious again.

Methodical advice: The therapist tries to put the child's physical-emotional needs into a musical context. The exact synchronisation of the proprioceptive sensations, here in a hammock, with the melody that is being heard, helps the child to co-ordinate these two modes of perception (body feeling and listening). This integrative work must have the child's weight as starting point, and take the child's tempo into consideration. Only this leads to a contact reaction which is marked by a first and short positive affect.

Modus 2 Functionalizing Contact

Intervention: Affect attunement / forming of affects / allowing oneself to be functionalized

Tensions arising from the child's higher level of attention can be regulated by the caregiver so that the affects will be finely attuned. Because during this phase the child becomes capable of staying attentive for a longer period of time, it is especially vulnerable to inadequate stimulation (under- and overstimulation, Als, 1986). It may possibly still be unable to protect itself from even minimally intense stimulation. This phase is particularly critical for the ability to regulate its own affects. Only if the caregiver acts sensitively does the child learn to endure extreme tensions and to regulate them. This experience creates a feeling

of trust. If, however, the caregiver is not in a position to attune himself sensitively with the child, be it because he currently cannot perceive the child's physical and emotional signals properly, or because he cannot commit himself emotionally or because he reacts ambivalently, the child is not offered the effective help of external regulation. Some children react with avoidance and/or mixed feelings even in this early phase.

Case example: Marian

Marian strikes the therapist's forehead: "Not me, you can beat the drum" the therapist says. Marian demonstrates auto-aggressive patterns of behaviour as well as aggression against others. His high affective tension and excitement manifests itself in hard blows, coming unexpectedly, and in biting the back of his own hand, in his exaggerated laughter, his distorted voice and the way he beats – and not plays - the drum. "Broken, everything is broken", is his only verbal utterance. The therapist makes up a song with a refrain that absorbs the high affective tension. Fascinated but also examining, Marian observes in a controlling manner her face, while at the same time powerfully beating the drum. The therapist also responds to his distorted singing in the same intensity and integrates it into the "Broken Song". Half stunned, half exaggerated laughing - the child's extreme tension relaxes after numerous repetitions of this song.

Methodical advice: The child shows suddenly occurring affects of high intensity which lead to auto-aggressive acts and aggression against others. Because the relationship has already been partly established, the child accepts the offer of playing the drum. Only by attuning these intensive affects precisely and in time can the therapist regulate them externally. This regulative aid is accepted by the child. The improvised song in form of a Refrain song with the improvised parts in between which integrate the child's beating of the drum and its distorted, strained vocal utterances, allow the child to make the experience that mainly negative affects are not dangerous, but much rather can be shared, understood and regulated.

Modus 3 Contact to Oneself / Self – awareness

Intervention: Stabilising of the proprioception, making aware of the child's expressions/utterances

With all children the quality of an adequate positive support from birth is decisive. It forms the basis for the further establishment of a stable self-regulative ability as well as for the development of self-competence and autonomy. It is ultimately crucial for a consistent relationship. In order to establish one's "Core Self", a self-perception has to be developed involving self-agency, self-coherence, self-affectivity and a sense of one's own history called self-continuity (see Stern's terminology 1985).

In his revision, Stern emphasises that a coherent sense of body can only develop through the experience of being affectively regulated by the caregiver (Stern 2000). This process presupposes the sensation of being a complete physical entity, of having limits and a physical centre of activity and of being the originator of one's own actions. The infant senses it has its own will, it can control its own actions and can expect certain consequences of these actions. If the child, supported by the caregiver, develops these abilities undisturbed, it will be in a generally positive mood (Sroufe, 1996). In the course of a gradually growing relationship to the outside world, expressed in social gestures such as a quiet, attentive and exploring look or the observation of the caregiver's facial expression, the child learns more and more to regulate its inner conditions psycho-physiologically. It can now turn away more actively from unpleasant stimuli. From the fourth month traces of memories can be associated with positive and negative affects and stored in the mind. From now on the child will be capable of developing its own emotional qualities according to specific feelings.

Case example: Oscar

Oscar is a very restless child who is constantly moving around in the room. Swinging in a hammock stabilises his physical perception and thus his affective condition. After the therapist has sung a song for Oscar integrating the sounds he utters, she makes a break. Oscar sits up straight in the now silent room and from a close distance begins an intense study of the therapist's physiognomy. This quiet phase of observation and exploration lasts for a long time.

Methodical advice: Long phases of rhythmic proprioceptive stimulation, here in a hammock, enable the child to gradually develop a relationship to its own body and its own affective condition. Thus it can direct its perception to the outside.

Modus 4 Contact to Another / Intersubjectivity

Intervention: Being included as a person, who can introduce his own ideas without expectation of dialogue

This level of development is characterised by joint attention and joint intention, i.e. intentional communication making the child aware of the effect its intentions and motives have on the therapist. With the growing experience of being the originator of actions, of perceiving one's body as a separate entity, of having individual feelings and a history of one's own, an increasing interest in the outside world develops. This interest manifests itself in the way the child starts to share its perception with its environment (social referencing). The child can assimilate new impressions and takes on a more active role in its affect regulation. The modulation of the tension, however, depends on the security of the context. When a child feels insecure, it does not only observe the facial expression and gestures of the therapist, it also interprets them. When a child recognises itself as the author of its own actions, the engendered affect makes it take up eye contact with the therapist. If he reacts positively, the affects will start to be stabilised.

Case example: Tanja

Tanja squeezes the therapist's hands, who in turn squeezes Tanja's. This to and fro develops into a "train game", which the therapist accompanies with the appropriate sounds. Following this, Tanja examines her hands and looks for confirmation of her emerging physical perception by looking to the therapist, first in astonishment and then with positive affect. Eyes and hands are co-ordinated, both players are attentive.

Methodical advice: The child is increasingly experiencing its own identity and searches for emotional security by having this confirmed. It clearly perceives the therapist who offers the desired support in her affective presence and sympathy. The relationship to the therapist is about to establish itself. The more settled the relationship, the more stable the affective condition.

Modus 5: Relationship to Another/ Interactivity

Intervention: Answers and questions/ musical dialogue

Due to a now well-developed memory the child encounters each situation with certain expectations and reacts accordingly to the outside world. A precondition for this is a well-defined relationship to one's own identity. The perception of the physical distinctiveness between oneself and the other enables one to share experiences with the other person. The repertoire of emotional expression increases. The child is starting to regulate positive (e.g. interest, surprise) as well as negative affects (e.g. sorrow, aggression) for itself and in a relationship. A long-term positive affect accompanied by an equally positive quality of eye contact is observable. On account of the longer lasting inter-attentionality and eye contact the child is starting to perceive the other person's emotional disposition more precisely.

Case example: Oscar

Playing with sounds and gestures leads to an interactive game. Oscar alternately claps into the therapist's and his own hands while quietly singing along to this. The therapist reacts with her own sequence of clapping. The intensity of the child's movements expresses its high and continuously rising tension brought on by constant interaction, which, however it can regulate itself by taking occasional breaks. Oscar obviously is concentrated on this form of playing and tries to make it last as long as possible.

Methodical advice: The child shows growing interest in the therapist, who is now also integrating her own ideas into their games. The therapist is now diverging more noticeably from the child's expectations, thus encouraging it to cast off its reservations with a view towards making the child react to her own ideas. An exchange of ideas takes place. Question and answer games that go on for a while take place, and are accompanied by some positive affects. The child quite clearly shows that it is interested in this dialogue. The increasing intensity of the affect leads to hardly perceptible signs of stress and regulation. When the therapist becomes aware of such signals, she will regulate the intensity and duration of the shared activity and experience accordingly, in order to prevent the child from being emotionally overcharged.

Modus 6 Joint Experience / Interaffectivity

Intervention: Playing joyfully together/ Connecting affect and activity

The child has a reservoir of positive and negative affective experiences with its caregiver. On account of this person's contingent reactions the child has established a stable and consistent affective memory with expectations of certain consequences. It now has an internal "working model", i.e. it has developed expectations concerning external and internal regulation. The consistent experience of positive affects creates a feeling of security. This enables the child to share extreme tensions with the caregiver and to endure them without feelings of anxiety or distress. The child, who primarily experiences its affects physiologically, is at first regulated physically by the caregiver. In the course of its development it makes the experience that its inner conditions are regulated psycho-physiologically at the beginning and then later psychologically. This experience will later lead to the development of empathic abilities and a "theory of mind" (Frith, 1992). The "theory of mind" implies the ability to be aware of and recognise that the other person also has individual emotions, desires, thoughts and intentions.

Case example: Julian

Julian shows growing interest in the therapist's face and nose. This is why she uses her nose as a musical instrument by singing a song through it. Julian complies with the therapist's request to sing a similar "nose song" through his own nose. While doing so he puts the other hand on his chest as if he wants to feel where his singing is coming from. Julian also feels the therapist's chest in order to perceive her singing. Interested and laughing at the nasal style of singing, both players are obviously having fun with each other.

Methodical advice: The child's interest in its own and the therapist's body leads to a game using the bodies which, on account of its musical integration, is made repeatable. Long phases of interaction intensify the relationship and a psychological closeness develops. If this feeling of psychological closeness endures, joy becomes visible and audible. Positive affects are freely expressed and exchanged between child and therapist. Emotional flexibility manifests itself in joy and pleasure with the shared game.

Summary

The body as well as the child's state of affect has to be the starting point for therapy with physical-emotionally disturbed children. The most important reason is to find in the capacity of specific music therapeutical interventions to stabilize the neurophysiological systems (vagal tone & cortisol level), that is to say, playing a crucial role in regulating emotions. If not, an over- or under stimulation causes the child to reject. It doesn't react, it refuses the therapist's offer. A frequent form of behaviour is that while accepting the therapist's offer, various signs of stress can arise (Als, 1980). If the therapist learns to recognize these symptoms early enough, through adapting the intervention contact can be maintained. In this way the therapeutic offer is adequately adapted to the child's emotional-cognitive state of development.

The Assessment of the actual quality of relationship between child and therapist with the help of the AQR-tool helps to assess if the modi are on the same level. In order to apply these described intervention techniques an appropriate training in physical-emotional interventions has to be taken by the music therapist. The frequently expressed argument, that children must not be physically touched, can be a culture issue, and is understandable in a paedagogic and non - therapeutic context. This, however, ignores the real needs of an emotional dysregulated child, who, because of his emotional-cognitive delayed development, cannot yet use music instruments as a form of expression.

In the first years of life, music is an experience involving both body and voice. Here we are orientated on Carl Orff's definition of Elemental Music: „Music is never music alone, but combined with movement, dance, and speech; it is music that one must make oneself, in which one takes part not as a listener but as a participant' (Orff 1964). This idea of music helps to develop the appropriate way of playing with the body as a starting point (Schumacher 1994, in: H.H. Decker-Voigt et al.) so that the regulation of emotions will be able to be stabilized.

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The Authors:

Karin Schumacher, Prof. Dr. rer.sc.mus., Music Therapist

Karin Schumacher studied Music Therapy in Vienna and Elemental Music- and Dance Pedagogy at the Orff Institute in Salzburg. She was active at a psychiatric clinic for many years and has been working at a day-school for children with autism since 1984. In 1984 Karin Schumacher was busy establishing and supervising music therapy as an academic course at the University of the Arts in Berlin. From 1984 since 2016 she has been working as a professor of music therapy in Berlin and had held a lectureship 20 years at the University of Music and Arts in Vienna, Zürich and Leuven. In 1998 she graduated with her thesis on music therapy and infancy research at the University of Music and Theatre in Hamburg. She has been a licensed child- and youth-psychotherapist since 2000. In 2001 she was for the first time entrusted with devising and hosting the lecture series "Music and Medicine" at the Herbert von Karajan Centrum in Vienna. She is together with Claudine Calvet in a research project from the university of Bergen/ Norway. She works as teacher at the University of the Arts Berlin.
e-mail address: schumaka@gmx.de

Claudine Calvet, Developmental Psychologist,

Claudine Calvet studied psychology at the university of Sorbonne/Paris. Since 1980 she has worked on developmental psychological research projects at the Free University Berlin, University of the Arts Berlin, and the university Potsdam. Focus is on clinical developmental psychology of early childhood, especially interaction disturbances in children with and without handicaps. She is together with Karin Schumacher in a research project from the university of Bergen/ Norway. She works as teacher at the University of the Arts Berlin.
e-mail address: Calvet@udk-berlin.de