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Musical Play and Emotional (Self) Regulation A Maieutic–Formative Teaching Method

Alix Zorrillo Pallavicino^{a*}

^aMilano-Italy University of Milano Bicocca

Abstract

Play improves children’s emotional self-regulation abilities because, while enhancing their capacity to express emotion, it also enables them to differentiate and modify emotive experience and control negative affect (Galyer & Evans, 2001; et al). Children always incorporate sound into their play and this is one of the earliest manifestations of musical ability. Musicality, in turn, is a fundamental element of human existence of the human being and, not surprisingly, is closely related to cognitive, social and emotional skills (Trevarthen, 2000). What is the role of the music-play dyad in treating socioemotional disorders in school age children?

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1. Main text

All of those present have probably experienced how, in moments of intense emotion – which we could call “critical” moments - we spontaneously express our physical sensations (including strong feelings of joy or of pain) through basic inarticulate sounds. (“Oh!” to express surprise, “Bah!” to express disgust and so on). However when we need to represent our identity we are more inclined to introject visual and to a lesser extent also olfactory and tactile sensations: auditory sensations remain in a more intimate space, in the background as it were. Nevertheless, sound sensations represent a significant part of our meaningful experience and have had a deep influence on the course of our personal history.

* Alix Zorrillo Pallavicino. Tel.:+ 02 4049267.

E-mail address: azorrillo@yahoo.it

Making sound and resonating involves us emotionally (in extreme cases we say that it gives us goosebumps), perhaps more than we are able to describe in words. The evocative intensity of sounds seems to be “stronger” than descriptions using words; this peculiar strength is due to the ancestral nature of sounds. The world of sounds existed long before the advent of verbal language. Today we know that the intrauterine environment is neither silent nor static; it is a dynamic environment that also generates the basic elements of music: throughout its development, the fetus is accompanied by the sounds inside the mother’s body, underpinned by the rhythmic beating of her heart in the background, along with its own movements and sounds and the sounds from the surrounding world. The child in the womb is therefore a multi-receptive subject. Immersed in this special intrauterine acoustics that modifies sounds – higher-pitched sounds for example are more muffled than low frequency sounds – the fetus reacts to auditory stimuli as early as 16 weeks of life, long before the ear is fully formed (the cochlea has usually fully developed by 25 weeks). This implies that there may be other channels for picking up sound apart from the ear, as borne out by the fact that in the early stages of fetal development, sound waves are perceived through the entire body, in a process of sound-somaesthesia (vibro-perception) involving both bone and touch. Thus sound experiences relating to the heart beat (rhythm), breathing (melody) and tissues (harmony) of the fetus’ own body, the mother’s body and not only, are recorded in body memory (Hodges, 2007; Trehub, 2007). And in this regard, I am pleased to recall, that in 1998 in this very place – the Aula Magna of the Università la Sapienza – during the World Congress on Prenatal Education, I presented a paper proposing a course of preparation for childbirth with music: a programme that at the time I was carrying out on a pilot basis at a family service clinic in Milan. The latest advances in neuroscience confirm the importance of sound and auditory sensations in children’s play and in consequence, their importance for the structuring of self. In relation to sound behaviours, Delalande (1993) showed that the gestures that children make to produce sound bear a symbolic value, and are part of the child’s sound semiotics, that is to say, the study of the means used by the child (codes and behaviours) to associate meaning to sound, both produced and listened to, particularly during play. Through music the child develops enhanced awareness of his own emotions, using sound as a vehicle to explore them, and as a result, acquires greater freedom to express what he thinks, and above all, what he feels. This leads us to ask how adults can contribute to this exploration of sound expression on the part of the child, or what kind of pedagogical approach can they best adopt. If a child that is engaged in repeatedly throwing an object, receives a negative message from an adult such as: “No, you’re not to do that, you’ll hurt the poor little bear ...” we need to ask ourselves what educational role the adult is playing here. The child is carrying out an exploratory action and is engaged in the reconstructing and experimenting with the parameters of reference that are developing in his brain: in this specific case the parameters are those relating to the *force* of the throwing action and to *distance*. It follows that the *rules of the game* that the child is applying are entirely coherent with his aims: it is the adult who “jumps in” trying to impose *his own* rules. How can adults be helped to better understand the development and cognitive processes effected by the child through “testing and confirmation” forms of play? If we were to survey parents – but also education and care professionals – to explore their vision of the mind of the new-born child, we should not be surprised to discover that many of them are convinced that the new-born brain is like a “blank slate” and that its cognitive capacities will develop little by little, through an inductive process, as he relates with the outside world. Within the dominant culture, this idea is reflected in a well-defined role for parents: their job is to teach, educate and progressively fill a virgin and receptive mind with contents mediated by reality and experience. Play enters into this dynamic with a primarily instrumental function: it is a consolidated common sense perception that play is not only a ludic activity but also allows the parent to dialogue with the child, explaining through metaphors the laws of the physical universe. “Look how you do it!” If the child then throws down the toy or bites or treats it roughly, the parent intervenes to reinforce his earlier instructions: “No, that’s not how you do it!” We all know that play is educational: the child learns through play. What does he learn? He learns – this is the commonly shared conception – to know reality by means of an inductive process. Today the progress made by neuroscience is contributing to release us from this empiricist vision (John Locke, 1690), which has conditioned educational practice for centuries. The human brain – or mind – is not a “blank slate” at birth. In fact, it is neither a “slate” nor “blank”. The human brain is not born fully complete or defined in all its connections. Most of the interneuron synapses, that is to say the network that when complete will connect the hundred billion neurons in our brain, develop in the first months of life. This means that at birth, the “slate” has not yet been fully constituted. On the other hand, neither is it completely “blank”: recent studies, particularly in the field of language, but not only, have shown that the “synapses to interpret reality” are already present in our brain at the moment of birth and are part of our genetic heritage. Therefore we do not learn “the rules of the game” through an inductive relationship with

external reality, but find them already inscribed, albeit in encrypted form, in our genome. On these grounds, do we need to modify the role that we attribute to play? We most certainly do! The function of play is no longer to supplement traditional teaching methods (“I’ll show you how”) or to be inductively exploratory, but to fulfill a maieutic function: it is the instrument through which the child “reconstructs and develops” his syntactic criteria for interpreting reality. Exploration becomes “recognition”, operational development and, at the same time, confirmation of the “a priori” syntactic rule. When a toy is put in the child’s cradle or hung where he can see and touch it, he does not require “instructions” to use it and discover its “maieutic” function. If the parent manages to restrain himself from imposing his “instructions”, the child will gradually discover for himself the instructions that he really needs for “his own” purposes, which for the most part involve discovering how to apply and verify his syntactic interpretive criteria to a reality that he is gradually discovering, taking the measure of and interpreting. Within this process, play – and especially sound play – fulfills a key function that we may define as “maieutic”. However, we need to clarify a few key concepts. What do we mean by maieutic function? Does it mean to activate a process of recognition of “truths” that we innately carry within ourselves? Absolutely not! Our genetic heritage does not transmit either explicit or implicit knowledge to us. It only transmits an interpretive syntax. This syntax with its interpretive rules does not possess any content of truth. We do not attribute a truth value to these rules, but a much more down-to-earth and meaningful value which is that of proven evolutionary usefulness. I would like to express this through an example: when a scientific revolution, such as that started by Einstein with his theory of relativity, shows that many previously accepted theories are not true in the absolute sense, it is still possible that they may continue to provide a useful interpretative framework under given conditions. The wise scientist or technician, in such a scenario, will not concern himself so much about whether these theories are true in the absolute sense, but will continue to apply the instruments that serve his purposes. Likewise, the process of natural selection, the only means by which the rules of syntactic interpretation of reality may be inscribed in our genome, is not based on truth criteria but on functional criteria. Just as scientists, even after Einstein, continue to use, within particular frameworks, the criteria of the now partly disproven theories, not because they are true in absolute terms but because they are functional to the attainment of specific objectives, so the process of natural selection inscribes in our genome the syntactic rules that have been most efficient in guaranteeing the survival of the species under a set of given conditions. These syntactic rules, in any case, are not contained in our minds in an explicit mode, in the form of cognitive proposals (Moro, A. 2012). Their function is not that of transmitting explicit knowledge contents, that is to say, a priori organizing-connective criteria. The child, in his first months of life, does not know words, that is to say, the concrete signs that each language assigns to the contents of reality. However, he implicitly possesses the logical-syntactic criteria that allow him to organize a proposition independently of its contents. These criteria do not depend on either the contents of reality or the specific ways in which the different languages and cultures define the contents of *their own* reality. The logical-syntactic criteria inscribed in our genome are common to all cultures, speaking a universal language in the sense that they are culturally undifferentiated. They therefore need to be “extracted” from their encrypted form, developed into an explicit modality through contact with the contents of reality and the specific world of cultural references the child lives in, and verified through experience of the external world. Therefore, if the education process in early childhood is to be effective it cannot be restricted to “didactics” in the traditional sense, but must use a “maieutic-formative approach”. Maieutic in the sense of helping the “self” – conscious and unconscious – to assimilate the organizing-connective criteria written into our genome in the developing brain; formative, in the sense of fostering the formation of the cognitive process that is a synthesis between the abstract organizing-connective criteria and the process of progressive acquisition of the contents made available through sensory experience. This sensory experience (aesthesis, which for Aristotle is the aesthetic means of acquiring knowledge), when it takes the form of musical play, that is to say of intersensorial stimulation, has the potential to play a key role in earliest childhood. It is a space of sound that becomes a psychic space, within which the noises of the child’s own body (gurgling, the sounds of eating, evacuating etc.) together with the sounds from the external environment generate the construction and subsequent verification of traces of experience. The experience of sound is therefore critical not only to the structuring of self – in terms of sound identity – and to the definition of the psychosomatic apparatus, but also as a mirror of sound provided to the child through its mother’s care in terms of melodies, rhythms, tones and voice. Voice in particular, amongst the sounds nearest to the child, provides a relationship experience starting from when it is first perceived in the womb as a vibration. Voice is initially experienced during the “fusion” of mother-child symbiosis; it later becomes a “bridge” preparing the child for the separation of self-from-other, a process that follows a path traced for the most part unconsciously by both parties

(mother-child). Before learning to speak, children are already capable of phonic expression across an extremely wide timbric range, that is not aware of the rules of semantics and starts with the babbling of the child between the ages of three and six months. This is one of the most important transitional phenomena, as Winnicott points out, taking the form of a backward and forwards movement, between the self and the other, of “contagious cries grida”. At around the age of nine months, important progress is made; the child begins to produce true sound responses. This is the phenomenon termed musical babbling (Moog 1988), that develops between seven and nine months and differs from simple lallation in that it is produced only when the child hears music; specifically musical babbling only occurs when someone sings music to the child. This phenomenon is clearly differently from the laughing, cries and monologues that the child produces when exposed to sounds and which express the pleasure he derives from simply listening to them: these are the precursors of verbal language. With regard to the relationship between music and language it is of value to note that L.S. Vygotsky made interesting observations about the child’s egocentric language. This language, he claimed, accompanied the activity and psychic experience of the subject, similarly to a musical accompaniment.

Finally, just as rhythm, sound and movement are cosmic elements, in the same way – taken all together – they are archetypal experiences inherent to the human being. We need only think of heart beat, breathing, gestures, voice. All of these are basic elements of music, elements that may be expressed by parents and child within the transition space called play (Trevarthen, 2000). On these grounds, confirmed by the latest research, it is clearly important to develop a didactic approach that be refined through longitudinal research exploring, identifying and analyzing the behavior of both adults and children within the context of “musical play”. Within a context, in other words, that provides a “maieutic” education for the child, through the discovery of ways to apply and verify his syntactic-interpretative criteria. Maieutic, therefore, in the sense of helping the “self” – conscious and unconscious – to assimilate the organizing-connective criteria written into the brain. The first question to ask at this point is “how”? What approach must the adult adopt? What should the adult’s role be in fostering, and even guiding, but without disrupting, the maieutic-formative process? These reflections are intended to be the basis for a research project aimed at observing the mechanisms of “musical play” and intervening in and through musical play to develop a maieutic-formative teaching method that acts on:

- the variations in “emotional self regulation”,
- the characteristics of behavioral self regulation,
- the characteristics of, and possible developments in, the relationship between adult and child.

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