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Musical games and empathy

Empathy - the understanding of, sensitivity towards and ability to adequately respond to another's feelings - is a vital human capacity. It is important for enabling healthy and meaningful relationships; it is important for maintaining functional and productive communities; and it may even be important for resolving conflict and promoting co-existence between clashing societies. Advancing and enhancing a capacity for empathy already in childhood must thus be a major goal in education. But how can we 'teach' children to be empathic? One way could be to explicitly talk with children about empathy. Define what it is, demonstrate it through case studies, and even practice it through role-playing. I would like to present here a complementary, bottom-up approach, based on implicitly strengthening in the child some of the cognitive and social foundations necessary for empathy. I would like to describe how this could be achieved through recurring sessions of musical group interaction (MGI) - the joint playing of music by a group of individuals, in this case, children.

Musical group interaction and empathy

Careful analysis of how MGI participants may interact musically, socially and emotionally, revealed that many MGI features and many of the skills required and acquired by MGI participants may also be necessary for empathic behaviour (Cross, Laurence and Rabinowitch, 2012). For example, players in MGI need to be very attentive to each other's rhythms and to continuously adjust their playing in order to keep in synchrony. Such attention, understanding and adjustment appear to be essential for empathy. So it might be the case that as MGI participants become

more and more proficient in maintaining synchrony and in mutually adapting to each others' musical productions, they may more readily exhibit empathy towards others just because it is easier and more natural for them to attend to what is transpiring in others. Similarly, when engaging in music, players are virtually compelled to imitate each other physically, as well as 'musically'. For example, musicians naturally echo each other's musical phrases, and it is well documented that they often imitate also each other's bodily gestures (Juslin and Västfjäll, 2008; Overy and Molnar-Szakacs, 2009). Thus, imitation may align players, making each other's intentions and emotions more accessible. Moreover, imitation in general is considered to promote the sharing of mental states and help us understand and experience empathy (Meltzoff and Decety, 2003; Frith and Frith, 2006). Regular participation in MGI may thus develop the practice of such imitation, which might generalise to an every day tendency to observe and absorb others' state of mind resulting in an improved accessibility to their emotional needs. Another example stems from the potential of MGI to form an environment of affiliation and trust. Unlike language-based interaction, musical interaction does not require the interacting participants to be explicit about their opinions or their interpretation of the collective experience (Cross, 2005). Instead, musical interaction permits a considerable degree of flexibility and ambiguity without compromising the integrity of the joint outcome. During the interaction, each participant can sense that they are experiencing the meaning of the music 'naturally', and the experiences of other participants are perceived as being in alignment with their own. This may

establish a sense of openness, affiliation and trust amongst players. Thus, regular participation in MGI may teach children that it is possible to reach and understand other children, even if they initially seem to be very different from them. Moreover, children who become accustomed to situations of openness and affiliation are likely to become more open to cooperating and understanding others in general. Similarly to synchronisation, imitation and to the overall sense of affiliation and trust, we identified a set of additional MGI features that may also be conducive to empathy (Cross, Laurence and Rabinowitch, 2012).

The MGI programme

In order to explore whether indeed the skills and attitudes foregrounded during MGI might generalise to everyday, non-musical interactions and facilitate empathy in these interactions, we designed a special MGI programme for school children, consisting of musical games and tasks, each intended to emphasise a certain potentially empathy-promoting MGI component. For example, synchrony games were designed to encourage the interacting individuals participating in the joint musical interaction to gradually experience synchronisation. One such game was the 'Improvising Rhythm' game in which the group's task is to improvise together, while the rhythm is being constantly changed, either spontaneously, by one of the group members, or by someone from outside the group. Importantly, the games were designed to ensure that the musical encounters should be other-directed, rather than directed towards self. It should also be noted that the games did not require children to be aware of any explicit process of empathising; they were intended to focus children's attention on the process of engaging musically with each other within the constraints of each game. In order to appreciate the effects on empathy of the MGI programme we developed a set of measures intended to evaluate the children's capacity for empathy before and after participating in the programme.

Testing the MGI programme

A one-year long study run in four UK primary schools in one-hour weekly sessions produced very encouraging results

(Rabinowitch, Cross and Burnard, 2012). The 8-11 year old children who participated in the MGI programme displayed increasing sophistication and cooperation in their musical interactions throughout the year (Figure 1). Remarkably, their capacity for empathy improved substantially by the end of the study and was significantly higher than that of children participating in a parallel non-musical interaction programme, as well as children not partaking in any additional programme as part of the study.



Figure 1: Children playing together in an MGI session (faces masked for privacy reasons).

Musical games

Following are a few representative examples of games introduced during the MGI sessions, grouped according to a subset of particular MGI components expected to contribute to empathy (Table 1 opposite). In addition to several new games invented especially for the study, many of the games were taken from or inspired by the wonderful book by the late Tony Wigram, 'Improvisation; Methods and techniques for music therapy clinicians, educators and students' (Wigram, 2004). Further details are readily available upon request.

Emphases and general guidelines

Beyond the prescribed MGI programme of games and interactive sessions, are several overarching principles for running a successful MGI programme, many of which became apparent while running the programme.

General atmosphere. Most pertinent to the conducting of MGI sessions is the constant maintenance of an atmosphere of sharing and

Table 1: Examples of musical games according to several of the MGI features expected to contribute also to empathy. Each feature is followed by a brief description (grey shading) and then by a short list of a few representative games.

Synchrony: Players are encouraged to be aware of a common beat and align themselves with it.	
Dyadic rhythm	Each pair of children face each other while several especially rhythmic musical excerpts are played. In each pair one child is the leader and the other is the follower. The task of the leader is to create bodily rhythms that 'match' or represent the rhythms which are being played, and the follower's task is to try as much as possible to follow the bodily movements of the leader.
Composing rhythm	The group composes together a rhythm (beginning with short segments and gradually shifting to longer ones).
Imitation: Players are encouraged to imitate each other during the musical interaction.	
Mirror, imitate, match	Children are seated in a circle, and each time one of them plays a short phrase, the child next in line either imitates or matches the phrase of the previous child, creating a long line of short connected melodies.
The 'echo' game Wigram (2004), p.187	Each child picks an instrument they like; one child plays a sound or a short phrase on the instrument. He is the leader now. All others have to echo the sounds he is making, but together, at the same time.
Ambiguity: Musical interaction leaves explicit interpretations and meanings ambiguous.	
Send a message Wigram (2004), p.185	Each group member sends a message to one of the other members, which is then sent on to the next member.
Transcription	The group writes a very short verbal conversation (a few short sentences) and then tries to 'transcribe' it into music.
Shared intentionality: Participants in musical interaction share unifying goals and intentions.	
Soft-loud-soft Wigram (2004), pp.189-90	Everyone starts playing very softly, then gradually very loud, and then soft again, in a spontaneous sequence.
Musical puzzle	Each child is given a musical piece of a puzzle (either as a form of a CD, as a simple notation, etc.) and together as a group they are asked to try and reconstruct the whole piece.
Intersubjectivity: Participants in musical interaction share affective and cognitive dynamics.	
Themeing another	Each child chooses another child to think about when they are playing. It could be done in duos or trios (smaller groups) thinking about one another, or with the bigger group as a whole.
Musical mindreading	Children need to reveal what is the theme that another child has in mind, or what is the 'mood' of the other child, only through the musical playing.

togetherness, devoid as much as possible of competitiveness. This must be done, however, without compromising the importance of each single participant as an equal and significant contributor to the interaction. It is a fine balance,

which can easily be disrupted, especially in a musical context, and must thus be persistently monitored and regulated. Especially helpful was to position the children, when relevant, in a circle (implicitly emphasising union, balance,

equality), assigning each child to a particular musical instrument (signifying individuality), and obviously making sure that the children receive a similar share of leader/follower roles in the tasks being performed.

I also found it important to frequently pair children who initially seemed reluctant to cooperate one with the other, such as boys and girls, or children who were not speaking to each other. It always worked. And I believe that this had substantial value in distilling within these children new possibilities for communication, significantly substantiated by the use of music.

Musical background

Participants in the study had diverse musical backgrounds. Not surprisingly, I found that the stronger the musical background the deeper and more far reaching were the MGI encounters. This was reflected in the level and sophistication of the interaction, the degree of immersion of the children in the interaction and utterly their enjoyment and satisfaction. The MGI programme is thus not proposed as an alternative to regular musical training. On the contrary, it has a lot to benefit from existing musical proficiency of participants. It can be viewed it as an intermediate between musical education and social enrichment activities.

Process rather than goal

A further important approach sustained throughout the MGI sessions, was to emphasise repeatedly that there was no goal to accomplish in the interactions except for playing together and enjoying the interaction. This was in line with the perspective taken by such researchers as Small (1998) and Finnegan (2007), whereby music is to be seen as an activity rather than an objective, and that the making of music, is much more relevant and important than the final outcome. I found it helpful to assume a hands-off attitude, providing children with maximum creative freedom within the boundaries of the task being performed. In this way the centre of attention shifted from the task goals to what is actually being done during task performance and to doing it in a most interesting and joyful way.

Discussions and verbalisation

Typically, intervention programmes consist of recurring open discussions and reflections about group dynamics and personal processes

taking place. I chose not to initiate any verbal discussion about what was happening during the MGI sessions, and the children never appeared to require any such discussion. The MGI experience just sank in and it seemed that any articulation would only spoil the experience. This was a remarkable manifestation of the kind of communication that music offers: heavily charged with emotional content but free of explicit specification.

Conclusion

Developing and encouraging a capacity for empathy in children is a challenge for modern society, which can be comprehensively addressed by educational systems as well as parents. Taking advantage of the inherent characteristics of musical group interaction, a most ancient form of human social activity facilitating social-emotional communication, we have designed a special programme consisting of multiple musical games introduced to children according to particular guidelines and principles. The MGI programme was capable of enhancing the capacity for empathy of participating children, presumably by developing and strengthening particular cognitive and social skills in these children that are required for empathic behaviour.

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