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Musical microimprovisation

Investigating pedagogues' spontaneous use of music in everyday situations as a driving force of community building in kindergarten

Spontaneity and singing in Danish kindergartens

Music can play a strong role in giving humans a sense of belonging to a group (Mithen 2005). Although this applies to people of any age, Amanda Niland (2015) pointed out that this is by no means less important when working with children within a professional pedagogical context: "...singing ... has potential to support the formation of relationships in childcare settings... singing contributes to well-being and thus potentially to a sense of belonging." In Danish kindergartens, music is often a very organized matter. This can take the form of a kind of *music class* consisting of 30–45 minutes in a circle being led by the (music) pedagogue¹ in a well-known frame: starting with a *hello* song, then a mixture of songs with gestures, movement, and instruments, before a final *goodbye* song (Boysen, Zeuthen, and Thorsen 2021; Holgersen 1997). Alternatively, singing can occur as part of rituals such as a gathering (in Danish: *samling*) or before lunch.

However, this article will explore the effect of the conscious use of music and musical elements outside of these organized settings (i.e., outside "the circle"). "The circle" is to be understood both metaphorically and as an actual circle. While playing music and singing in kindergarten mostly takes place in a physical circle of participants, I am also inspired by Huizinga's (1993) idea of the magic circle where play can exist, where certain rules apply, and where participants play games together. In a study from a Norwegian kindergarten (Bilalovic Kulset, and Halle 2020, 308), music activity was even named after the circle: "In the typical set-up for singing and music-making in Norwegian kindergartens, one of the staff members conducts circle time (of which singing is a natural part)."

The magic circle is a sort of community, and it can be initiated through a ritual that might well encompass or involve music. Notably, these communities are necessary prerequisites for music in the circle but are outside the scope of this article. What children and pedagogues can achieve through planned music activities in kindergarten and how to perform these activities has been the subject of much research. Searching

1 The term pedagogue is used throughout this article to designate any adult working in kindergarten or daycare, regardless of whether they have a bachelor's degree in social education or not, or if they are students of said degree. In some countries, the proper term would be preschool teacher, but pedagogue resembles the Danish "pædagog", which indicates a *bildung*-oriented, Fröbel-inspired way more than a formal, educational preschool mindset.

the phrase “music AND kindergarten” on Google Scholar returns more than 200,000 hits, ranging from the whys from a *bildung* perspective (Holmberg 2012; 2014) to the hows (Liao and Campbell 2014).

What is much less studied is pedagogues’ spontaneous use of music in the transitional times and spaces of everyday kindergarten life. Thus, the *purpose of this study was to explore how this approach to music outside the circle can lead to community building and a sense of belonging to a group*. Communities can be of varying size and shape, in this case ranging from a single social interaction between two people up to a kindergarten group of approximately 20 children and 3 adults.

As Daniel Stern (2000) pointed out, communication between adults and children contains many musical elements, and most adults make use of these elements in their communication with children without being aware of them. This article aims to look at pedagogues (with or without special musical training) who are consciously drawing on this in their work with children’s sense of belonging to a community.

What is musical microimprovisation?

The main goal of this article is to develop the concept of musical microimprovisation (MMI) as a pedagogic tool and explore whether it can be useful as a theoretical perspective on interactions between children and adults in kindergarten. Accordingly, the following definition of MMI should not be seen as final, but as a first attempt to conceptualize this as a musical, pedagogical theory. Modes of MMI and their particular building blocks have long been used by adults engaged in child care. However, the phrase has never been associated with anything but music. In fact, neither scientific databases such as the Education Resource Information Center (ERIC) and the Nordic Base of Early Childhood Education and Care nor Google searches for either “musical microimprovisation” or “musical micro improvisation” return exact hits.

One important clarification to be made when speaking about the spontaneous use of music in kindergarten is that this study is about pedagogues and their use of music from an adult perspective, which is completely different from children’s spontaneous singing as described by Jon-Roar Bjørkvold (1992).

As a term developed and tentatively defined in this article, MMIs can be tiny drop-lets of music and musical elements in spontaneous, non-musical situations that can range from improvised lyrics, to well-known tunes, to imitating movement with sound (e.g., the sound of a child sliding down a slide is a glissando from a high pitched note to a lower one), and much more. Examples include changing the timbre, pitch, volume, and melody of one’s voice according to the words spoken (e.g., try to say “this is easy” and “this is hard” in the same way).

Known songs (or parts thereof) can also be considered MMI. The key principle is that social interaction is paramount and thus defines the situation’s needs—only *then* is the song picked out as one possible way of dealing with those needs.

MMI is to be understood as music outside of a musical context. “Musical elements” can be anything that makes music and is more than mere noise; however, this is a

topic for another discussion. For operational purposes, this article will rely on a common-sense definition of music: sound deliberately organized with the intention of making music. As French musicologist Nattiez put it, "...there is no *single* and *intercultural* universal concept defining what music might be" (Nattiez 1990, 55). However, most of us usually know music when we hear it.

In this definition of MMI, *anything goes* as long as it is a deliberate change or use of pitch, tempo, volume, melody, rhyme, rhythm, and repetition in a non-musical, everyday communicational situation.

One approach to MMI is the spontaneous singing of well-known songs in non-musical situations, sometimes with improvised lyrics. This approach is often centered around action and the pedagogue's intention rather than the children's emotions, as we shall see in the analysis of a particular situation in which a pedagogue sang about thumbs to help children put on their mittens.

Another approach explored in this article is the spontaneous use of improvised beatboxing to achieve a social, but non-musical goal. As we shall see, this will provide inspiration for pedagogues to create musical sessions with children, which leads to children sharing their own beatboxing.

The third way of looking at MMI can be found in spoken language when pedagogues add a musical layer to everyday communication with children. As Daniel Stern (2000) noted, we all draw on this when we attune with children. However, a musically proficient and skilled pedagogue can go beyond this to enhance musical communication through methods such as speaking in seufzers (*oh no – you spilled – the milk*) or musically mirroring the movement or action of a child, e.g. with a legato downwards melodic line saying *you are going down the slide!*

This leads to the following definition, which this study of MMI is conducted on the basis of:

MMI is any kind of social interaction or communication that is deliberately based on the conscious use of music or musical elements and effects as a means of purveying and amplifying the intention, message, or feelings of the agent. It is not prepared in advance but invented as necessary in any given situation. MMI is primarily—but not exclusively—seen as a pedagogical response to children's actions.

Notably, the three aforementioned examples are not the only ways of looking at MMI. The definition aims to be very open and inclusive of any interaction where music adds to the experience. Thus, the central points of this definition are a pedagogue's knowledge of music, how different musical elements can affect people, and that MMIs are made up on the spot. While further studies may narrow this definition or look into the different paths MMI can take, the present paper uses the wide definition with a focus on kindergarten communities of varying size.

First, what is meant by non-music activities should be clarified. Roughly speaking, what occurs on any ordinary day in kindergarten can be divided into three main categories: 1) daily routines such as nap time, getting dressed, having lunch, and so on; 2) the so-called "free play", where children get to choose who and what to play with; 3) the adult-led (or adult-initiated) activities with an intended social or learning out-

come. These can be anything from painting and storytelling to science projects, musical circle time, or an excursion to a local museum. Ultimately, this can be anything where the pedagogue leads the children toward a goal. Since these categories sometimes overlap (e.g., the social learning in sharing a meal), one can imagine activities that are difficult to pin down. However, that is not an issue for this article. This article considers non-musical activities to be any of the above if the pedagogue has *not* decided that music should be a part of it in advance.

Methodology

The primary questions of this study are concerned with the mere existence of MMI. Does it make any sense at all to consider MMI as a pedagogic tool? How can we distinguish MMI from *just talking* or *just singing*? Does *any* use of musical elements count as MMI, or—if not—can we determine a minimum requirement of musical skill, training, and proficiency? How is it possible to observe or measure the use of MMI?

While the secondary questions presuppose that MMI exists and can be observed, these questions are more concerned with the outcome. This study is interested in the social benefits to be gained from MMI, with community building as the desired goal. However, other studies with a focus on the influence of MMI on learning language, developing motor skills, or supporting children's understanding of abstract concepts could support the initial ideas of this study. Ultimately, this boils down to the following question: What is MMI and what is it good for?

Methodologically, the present study was inspired by action research (AR) (McNiff and Whitehead 2002; McNiff 2016), with one major deviation: the students serve as co-researchers or an extension of the researcher instead of the researcher themselves performing the actions. In AR, the researcher and practice to be studied are ideally in closer collaboration than this study allows for. However, another point from AR still stands in this study: that the researcher takes deliberate action to observe and learn. "Therefore, AR combines the ideas of taking purposeful action with educational intent and testing the validity of any claims we make about the process" (McNiff and Whitehead 2002, 18). By presupposing the existence of MMI, the students/co-researchers act to see to what extent the hypothesis holds true. Another way to see it is a Dewey-inspired constructionist approach like the one found in Mitchel Resnick's "learning spiral" (Resnick 2017). Resnick showed that having an idea or hypothesis and then trying it out to see if it works can be a good way to learn something new about both the idea and the world. Thus, with MMI, the study has the hypothesis that it exists (and has some useful qualities) and, by acting as such, researchers may or may not find results. In both cases, there are lessons to be learned.

To collect the empirical evidence for this study, approximately 40 students from the Bachelor's Degree Program in Social Education (in Danish: pædagoguddannelsen) were asked to participate. They were encouraged to work with MMI during one of their six-month practical education periods (i.e., six months working in a kindergarten

with educational learning goals and one day back in the school every fortnight) and incorporate the use of MMI into one of their personal learning goals.

This approach would empower the students to take control of MMI and use it in situations to their liking and comfort. They were not expected to do it in a certain way at certain times, but rather—in the spirit of improvisation—do it whenever they felt it could be useful and/or necessary and in ways they were comfortable with. Of course, repeating the MMI in similar situations would cease to be improvisation and slowly transform into a routine or *modus operandi*. If this occurred, children might or might not internalize and make use of the same musical elements in their communication and social interactions with each other or the pedagogues. The Bachelor's students would then write down stories about particular situations (in Danish: praksisfortællinger) where the MMI seemed to be relevant. This is a spotlight way of looking at things since it is context-sensitive and acknowledges the fact that pedagogical practice is complex and what works in one case cannot necessarily be transferred to another (Ritchie 2013).

Two such stories, as well as how the MMI relates to community building, will be discussed and analyzed in the following paragraphs. There is also a third story about the planned use of music that falls outside the scope of this study. However, since it is more or less in the same setting as the other stories—and because music is a means to an end—this story will also be mentioned. These three stories were all the students returned with, which might indicate that working with MMI requires more thorough scaffolding and proficiency in music performance and theory to be truly useful. This came as a surprise since several students claimed to already use MMI with their own children when introduced to the concept. Extended observations may reveal that MMI—not necessarily the pure form as presented here, but lesser modes of music use—is already an established practice in some kindergartens. Despite this, MMI is apparently difficult to grasp as a theoretical concept. As a result, it is not easy to contain in the form of stories. A small indicator of this is the fact that all three stories are wardrobe-area² stories. Three pedagogues all chose the transition from inside to outside (or outside to inside) as the object of their MMI story, even though one was planned and the other two have quite different narratives.

The third story

As previously stated, although the third story is not about improvisation, it shall be briefly mentioned here since it shares some goals and modes of musical action with the two MMI stories.

In this story, the children are 4 or 5 years old. Since the story takes place in October, it means that some of the children need help getting dressed in outerwear. From

2 The Danish word "garderobe" literally translates to wardrobe. However, in Danish kindergartens, "garderobe" means the room where the children keep their outdoor clothes in their personal space, and it is also used for getting dressed. Other words to describe it could be entryway or mudroom. However, I use the more literal translation "wardrobe area" to stress the characteristics and connotations of the "garderobe", which are well-known to any Danish parent: that it is a transitional space, a room for goodbye that is potentially noisy and messy.

the pedagogue's point of view, the children are too loud when getting ready to go to the playground. They are excited, in transition, and have been involved in a pedagogue-led activity or tidying up toys. Thus, the wardrobe area becomes a small space of potential freedom. Nobody is concerned with the group. The pedagogue prepared a song about different pieces of clothing (new words, old melody) to sing whenever the children are in the wardrobe area. This went on for several weeks with the children sometimes singing, sometimes not—choosing to do so individually each time the song was sung.

The characteristics that this case shares with the other cases are as follows: the setting – transitional time and space; the deliberate use of music as a tool to achieve the dual goal of taking care of practicalities – getting dressed, and community building through a shared focus – *sing with me, we're doing this together*. The following examples of MMI share these characteristics, even if they are quite different in practice. The first one is the most similar, with children going out to play.

The thumb and the mitten

In this story, it is winter and 19 children (aged 2–4.5 years old) need to get properly dressed for outdoor play. This happens several times a day, which can be quite a time-consuming task. In particular, the youngest ones in the group cannot get dressed on their own. The mittens are a particularly tricky part of this process, which means there are 38 thumbs that cannot find their way into a mitt. The pedagogue begins singing the first verse of a traditional Danish song about the fingers (*thumb, thumb, where are you?*), which involves hand gestures with one finger being introduced at a time. In the thumb verse, you stick out your thumb, which makes it much easier for the pedagogue to help the child's thumb find the right spot in their mitten. By doing this, helping the children becomes much easier and the dressing process becomes several minutes faster. This singing has now become part of getting dressed every time. Improvisation has become routine. The singing helps establish a shared focus and the gestures for this particular well-known song are showing one finger at a time. In other words, singing the verse about the thumb helps each child do precisely what is necessary to put on their mittens.

The practical benefits of this case are obvious, and the role that the song plays in community building will be dealt with after the next case is introduced.

The beatbox train

The story of the beatbox train has three chapters. The first is the beatbox train itself, the second is a spinoff in the form of a pedagogue-planned animal beatbox activity, and the third chapter tells of a child-initiated social interaction between a child and a pedagogue. This story is an example of how a pedagogue's use of MMI affects children's mode of approaching other people.

Once again, the stage is set in the wardrobe area and we will see how the pedagogue is using MMI (in this case improvised beatboxing) as a tool for gathering the

children and getting their attention. The children have been on the playground and now need to wash their hands before lunch. Although there is nothing special in this situation, the transition from an unstructured setting with 18 energetic 4-year-olds in high arousal—high and low arousal are concepts commonly used in pedagogy to describe children’s level of energy (Wiegaard 2016, 536)—getting out of their outerwear in a small space (with some needing help, some getting it, and everyone chatting, yelling, and so on) to the much more structured case of “wait in line and wash your hands” can be rather chaotic. In other words, the children are in transition from a “free play” situation to something organized; in this case, going from the wardrobe area to the bathroom.

At this stage, the pedagogue has two objectives: to get the children into low (or at least lower than high) arousal and establish common ground and shared focus on the task at hand. Washing hands before lunch is a *must-do*, there is no way around that. Since the pedagogue describes himself as *an old freestyle rapper*, beatboxing is in his personal toolbox and ready to use. He starts to beatbox to get the children’s attention. Once he gets their attention, he gestures to them to form a line and the beatbox train is ready to march to the bathroom. The shouting and shoving instantly stopped, and the handwashing occurs in a much happier and calmer mood. That train—like the thumb in the mitten case—became routine and part of this transition to handwashing every day.

Chapter two of this story is merely a stepping stone toward the real MMI point of community building in chapter three. Nonetheless, it is necessary to explain this chapter superficially at least. Seeing the children’s interest in beatboxing and the impact it apparently has, the pedagogue decides to elaborate on it. He sets up beatboxing sessions with the children. As a student, one of his learning goals is based on “planning, executing and evaluating pedagogical activities” using animal sounds, as stated in the curriculum (Professionshøjskolen Absalon, 2020, author’s translation). This involves a kind of music lesson centered around rhythmic figures, such as a dog, a snake, and a cat playing the drums: [kick hat snare] *woof hiss meow – woof hiss meow*. This is the pedagogue’s attempt to strengthen the sense of belonging in a community by using the highlights from his use of MMI to maintain the children’s interest in making the same kind of music together.

The third chapter of this story is about one particular child who is more interested in this than the other children. While the children generally liked the activity and had fun performing the animal beatbox, one girl would create her own animal beatbox rhythms and present them to the pedagogue—but only when she could do so without other children noticing. This is a good example of a child-initiated musical and certainly a social interaction. However, the interaction only occurs in the small community of two people and is explicitly not part of the larger community of the entire kindergarten class.

Discussion

These examples have two things in common that are important in the context of MMI: 1) they were not planned, but invented *in a particular situation and place*; 2) they were both based on a pedagogue's internalized knowledge and understanding of music and social interaction. Here, improvising is viewed as a way to add music as an art form to the necessary practicalities of everyday life in kindergarten (e.g., getting dressed and washing hands). Keith Sawyer (2008) spoke of constraints and the emergent in a given act. In the aforementioned cases, the emergent is constrained by necessary practicalities. According to Sawyer, this given act occurs as a performance in a genre (most notably jazz and improvisational theater). However, MMI allows the pedagogue to add art and creativity to the mundane. The pedagogues have what Sawyer (2008, 52) calls a "range of possible actions" to choose from, and they both chose music. In one case, a well-known song served as a *modus* to build on pre-existing communities. In the other case, an improvised beat became something instantly recognizable as music but with which the children have no prior experience. The "possible actions" were not of a musical nature *per se*; instead, music was chosen as a means to support the non-musical goals in both cases and allowed the children to engage in the task at hand as a community action and not merely a practical action. Through the use of MMI, pedagogues invite children to participate in shared activities. Practical tasks in kindergarten are much different from the improvisational music and theater performances discussed by Sawyer. However, this is exactly the point of MMI. By using MMI, pedagogues do not only invite children to participate but also to elaborate on whatever is occurring. One rule for improvisation is to "listen to the group mind" (Sawyer 2001). With that in mind, it can be stated that MMI for practical tasks is not only about what the pedagogue thinks the children need, but also about what the children want. Those things should not be viewed through the same lens since the *need* is—at least in these cases—what the pedagogues deem necessary, while the *want* solely stems from the children's perspective. For example, the children want to go play on the playground and think of nothing but play and friends, while the pedagogue knows how to keep the children comfortable enough by putting on mittens for that to be possible. MMI makes *want* appear as the most important of the two in light of community building since it must be based on the pedagogue's understanding of the children's emotions and opinions. MMI is not singing *just anything*, but responding to the children with music. To respond properly, the pedagogue must listen carefully. *Listening to the group mind* is about what *we* want, not what *I* want.

The animal beatboxing activity is similar. When planning such lessons in Danish schools and kindergartens, pedagogues will often use an educational planning model to ensure that everything has been accounted for: who are the learners, what is the subject, where will it happen, and so forth. Jank and Meyer (2006, 19–30) presented nine *wh-questions* (including *how*) that must be answered when planning learning activities. In this Germanic tradition, the focus is on *bildung* rather than the curriculum. Several different models are used in Denmark, all of which present a holistic view of

what needs to be learned in this particular case. A recent model developed by Stig Broström (2019) includes—among other considerations—*bildung* (i.e., why is it even important to learn music and engage in social activities?) and *situational analysis* (i.e., the children in this kindergarten enjoy the beatboxing; they will enjoy doing more of it, but not necessarily any child in any kindergarten will).

This context raises the following question: What does careful consideration when planning an educational activity have in common with improvised music in all kinds of situations? The answer is “the why and the who.” The *bildung* perspective relates to how we generally believe people can grow and express themselves *in the community to which they belong* (Klafki 1983; Hammershøj 2003). Once the pedagogue has an explicit way of thinking about the children’s *bildung*, it becomes a foundation on which actions can be performed—deliberately choosing the optimal action without having to consider what *is* optimal. In this case, “optimal” does not apply to a curricular context, but a social one: What is the optimal way of being ourselves when we are together? Frede V. Nielsen (2008) identified four different reasons for having music as a subject in Danish schools and also applied these to the kindergarten setting. The first reason is behavioral, where music serves as a tool to achieve non-musical goals (e.g., enhanced motor skills and collaboration). If we look through this lens at the two different MMI situations, it becomes clear that music is used as a tool in both the thumb/mitten case and the beatbox train. Music in itself is less important than the practical goals the pedagogues are trying to achieve. There is an essential distinction to make here: Nielsen discussed music as it presents itself in the curriculum, and the MMI examples mentioned here are almost entirely outside of any curricular thinking. Not completely, as the children need to learn to get dressed and wash their hands, but there is no curricular music in the situations. Music serves only as a tool, and the pedagogues could have chosen any other method (or even no method) to try and achieve their goals. All day, every day, any pedagogue is improvising pedagogically (Kristensen and Leegaard 2017) when acting and reacting spontaneously in both known and unknown situations. In these two examples, it is obvious how proficiency in music adds to the possible actions the pedagogues have to choose from. In other words, while the situation and MMI are occurring, it has nothing to do with Nielsen’s curricular discussion of music. However, as soon as it has passed and the pedagogue has a few moments to reflect, they might see a behavioral reason for music (e.g., *I sing with the children in the wardrobe area because it helps them get dressed so we can get to the playground a little bit quicker*).

Situational analysis (Broström 2019) is about knowing the children. What are their interests? What are their backgrounds? How are they as a group? Once these questions are answered, the pedagogue can use that knowledge—sometimes even unconsciously—when acting. In the beatbox example, this means that the pedagogue has an expressed knowledge of *why* and *who*. Music has had the power to unite us since prehistoric times (Mithen 2005). This makes music important in kindergarten, where children are supposed to both discover their own needs and wants while balancing those with being part of a group. How music does this and why it is important are two lessons for pedagogues to learn when discussing MMI and *bildung*. However, once it

has been learned (or at least investigated) during the planning of an educational activity, it becomes basic knowledge that is ready to use. Seeing how children act together in musical activities is another very important point. Using the beatbox as an example, there are two things to learn about music and social interactions with the children in this particular case that can serve as useful knowledge for pedagogues in future MMI situations. First, the pedagogue could get the attention of all of the children as the musical leader and the children would join in the beatboxing over time when marching with the train to the bathroom. Sven-Erik Holgersen (2002) found that children can apply several different strategies when participating in musical activities. In this case, the children may see themselves as taking part in the train, even if they are not making any sounds, since they have the feeling of participating in the musical group activity. The second point is that only one child could transfer the beatboxing from a pedagogue-initiated activity into being creative herself through a participation strategy called “elaboration” (Holgersen 2002). Moreover, she did not see her beatboxing as something to share with the entire group of children. She seemed embarrassed to present her own rhythms to the pedagogue, hoping no other child would hear her. It is unclear whether this is because she believed her music was not *good enough* or because she believed that the group would see her efforts as a silly waste of time (or something to that extent). Whatever the reason, it is clear that beatboxing had not become a standard mode of communication in this group.

MMI and community building

One outcome that music is capable of is exactly the one demanded in the above examples: establishing a shared focus. A shared focus is quintessential when it comes to singing together, whether in the context of improvisational jazz (Sawyer 2008), kindergarten circle time (Boysen, Zeuthen, and Thorsen 2021), or simply being human (Mithen 2005). In the discussion of MMI and community building, it is necessary to pause here for a moment. A necessary prerequisite for a shared focus is a group of at least two people. One person alone cannot share anything, but two people can. Whenever the shared focus is on a group activity (e.g., *we* are together in the wardrobe area because *we* are going to the playground), it can potentially strengthen children’s sense of belonging, of being a part of a group. A necessary prerequisite for performing music in a social context is shared focus. As soon as MMI is applied to a situation, it becomes clear that communication and community building are exactly as important as the music. Since MMI is relational in its very nature, it always deals with some form of social interaction. Thus, MMI can form and strengthen the bonds between the agents involved—both children and pedagogues.

As used in the above examples, MMI has the ability to shape the situational community and create a sensation among children of *now we are doing this*, with an emphasis on both *we* and *do*.

Music also has the power to affect our feelings and how these feelings are perceived and expressed through our bodies. This is also an essential part of MMI, even though it

holds little to no significance in the cases examined in this article. Since these cases are centered around the pedagogues' actions in the larger community, further studies should explore the music of emotions in spoken language *re*-actions (i.e., a musical elaboration of affective attunement) (Stern 2000). Knowing exactly how emotions are presented and perceived in music and which musical characteristics mirror which feelings (Mualem and Lavidor 2015) gives pedagogues the ability to properly—and on a musically high level—respond to the children when they express emotions and intentions.

To use MMI properly, pedagogues are required to have a certain level of understanding of music and how it ties into community building. This requires both knowledge and capabilities. To date, there is no definite list of necessary musical skills. However, an initial attempt at such a list would contain knowledge of pitch, tempo, dynamics, articulation, and interval, as well as the ability to distinguish higher from lower, faster from slower, and perform answers deliberately faster or slower. It would also contain knowledge of the musical expressions of emotions (as previously mentioned) and the ability to perform those (e.g., speaking slowly and legato when mirroring sadness). Whether extended knowledge of harmonics function should be considered a mandatory requirement for high-level MMI is an open question. Despite this, there can be no doubt that it can add to the musical quality of call and response when MMI is applied to spoken conversation. Other candidates that may or may not be included in this list are conventions such as the aforementioned *seufzer* or building blocks like the sequence to express “the same but not the same.” Finally, a knowledge of which songs children already know can also be very useful, as well as knowing additional songs to always have something to choose from.

Conclusion

The concept of MMI remains a work in progress. While its ambition is quite broad, the study on which this article is based has a more narrow view of MMI that only considers two aspects (as described in the stories of the beatbox train and the well-known song). The beatbox train is the most salient example of MMI since it is based on improvisation: both the musically skilled pedagogue's use of improvisational music and its spontaneous use as a pedagogical tool in an everyday interaction between the children and the pedagogue. It certainly meets the demands of the tentative definition of MMI since it is deliberately based on the conscious use of music, purveys the intention of the pedagogue (i.e., makes the children do as the pedagogue wants), and is not prepared in advance but improvised based on the pedagogue's musical skills and competencies.

It is less obvious whether the song about the thumb in the mitten is MMI. On the one hand, it does seem to meet the definition; on the other hand, it seems *too easy*.

One of the main purposes of developing the concept of MMI is to investigate at the significance of the musical phrasing of spoken language regarding social and emotional learning among children as well as the learning and understanding of words and ideas. While these factors were not part of the present study, future studies may look

into this idea or assess whether children can benefit from MMI in other ways. Notably, the focused musical training of pedagogues is another matter that lies beyond the scope of this study but should likely be addressed in a broader study of MMI.

The purpose of MMI in kindergarten is to provide pedagogues with a helpful tool while simultaneously strengthening the community and achieving practical, non-musical goals. The reasons why music can be used as such are twofold: 1) knowledge of musical effects can support intentions and emotions in spoken conversation; 2) music is a shared activity in itself. When using MMI, pedagogues invite children into the “magic circle” (Huizinga 1993) in which people (among other things) share the feeling of being in the circle. This sense of belonging can linger, resulting in children still feeling that they are part of the community even when they are no longer in the circle. When it comes to the practicalities of everyday life in kindergarten, MMI can transform these from—as the beatbox train example shows—19 children doing something individually to one group doing something together. Therein lies the true power of music in non-musical situations. By its very nature, it becomes a social activity where participants are mutually dependent on each other.

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