



# Singing and Emotional Development in Day-care: A Case Study from a Steiner Waldorf Day-care Centre

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## Abstract

Research on early care finds that singing is an important part of the emotional communication between child and caregiver in both parenting and day-care. Singing to children enhances attachment and supports affect regulation. In order to explore the role of singing in emotional care for children in day-care settings, the singing practices of a Steiner Waldorf day-care centre were studied. The research method used was psychodynamic infant observation. The study finds that singing creates an intersubjective and interaffective field, which facilitates a shared experience. The teachers create this field by “holding space” while singing. Singing functions as a means of collective affect regulation, and the imagery and storylines of the songs are found to enhance engagement in the shared intersubjective and interaffective field of experience.

**Keywords:** *affect regulation; infant observation; intersubjectivity; singing*

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## Introduction

The aim of this article is to explore how preschool teachers in a Danish Steiner Waldorf day-care centre use singing as a form of collective emotional care for children aged 0–6. The aim is to contribute to the growing body of Nordic and international research highlighting the role of singing in emotional care for young children.

## Research on singing as emotional care

A growing body of research shows that singing and ‘musicking’ (Small, 1998) plays an important role in emotional care for young children. Research in developmental psychology has shown that most infants are born with an inherent musical sensibility (Trevarthen & Malloch, 2002). Indeed, infants are attuned from birth to the music and melody of their partners in communication (Creighton, 2011). The musicality of infants forms the foundation of the dynamic sympathetic state, which allows two or more people to enter into intersubjective experiences of collective coordination and a feeling of companionship, both of which are fundamental elements of psychological and emotional care for young children (Malloch & Trevarthen, 2010; Trevarthen, 1999; Trevarthen & Malloch, 2002). Starting in infancy, musicality is an inherent aspect of the emotional communication between child and caregiver (Beebe et al., 1982; de l’Etoile, 2006, 2011; Hauge & Tønsgberg, 1996; Lester et al., 1985; Malloch, 1999; Papousek, 1994; Papousek & Papousek, 1981; Tønsgberg & Hauge, 2003). The musicality of the communication between child and caregiver is present in the patterns of rhythm, melody, phrasing, and narrative that lie at the heart of what Trevarthen and Malloch have termed *communicative musicality* (Trevarthen & Malloch, 2002).

In relation to the formation of attachment bonds, mother–infant singing increases mothers’ perceptions of emotional closeness and positive affect (Fancourt & Perkins, 2018). Additionally, singing and musical interactions are found to improve caregiver-child emotional bonds of attachment (Bonnár, 2014; Brisola et al., 2019; Savage et al., 2021; Trehub, 1997; Vlismas, 2007; Vlismas et al., 2013). Bonnár (2015) mentions that lullaby singing is an important part of caregiving in every known culture, concluding that lullabies nurture the parent-child relationship “in a deep and tacit sense” and promote a sense of “contact, relatedness, intimacy and closeness” (Bonnár, 2015, p. 341).

Singing has also been found to be an important way for caregivers to co-regulate the emotional states of their children (Brown et al., 2017; Cirelli et al., 2019, 2020; Trehub, 2021; Trehub et al., 2016; Trehub & Nakata, 2002; Trevarthen & Malloch, 2000). This is because as a caregiver sings to a child, its arousal level is regulated; thus, the singing functions as a way of caring for the child’s wellbeing and emotional development (Bonnár, 2014; Cirelli et al., 2020; Corbeil et al., 2016; Filippa et al., 2013; Milligan et al., 2003; Sanfilippo et al., 2022; Trehub et al., 2015).

In relation to early education and care, a meta-analysis of available research on how children benefit developmentally by participating in the arts (music, singing, drama, as well as the visual arts and crafts) concludes that “overall, music, drama, and visual arts activities are positively related to both social and emotional competencies in early childhood” (Menzer, 2015, p. 1). A review article on the developmental benefits of singing with children concludes: “Research on the impact of music interventions has indicated positive effects on a variety of skills. These findings suggest musical interventions may have further potential

to support educational processes and development of children” (Dumont et al., 2017, p. 1). A systematic review of research has found that participating in musical group activities has a positive effect on children’s emotional development (Blasco-Magraner et al., 2021). A study of a preschool arts enrichment programme that included music concludes that the participants showed an increase in positive emotion and a higher level of growth in emotional regulation (Brown & Sax, 2013). Other studies have shown that long-term musical interaction in music groups positively influences children’s development of empathy (Rabinowitch et al., 2012). Singing has also been found to enhance young children’s formation of friendships and sense of community across language barriers (Kulset, 2016, 2020). Further, four-year-olds’ participation in joint singing and music making activities has been found to promote prosocial behaviour, social bonding, and group cohesion (Kirchner & Tomasello, 2010).

## **Case: Singing in a Steiner Waldorf day-care centre**

In order to study the emotional role of singing in day-care, a Steiner Waldorf day-care centre was chosen, since singing with children is central to Steiner Waldorf early years pedagogy (Brown & Rosengren, 2022). However, Steiner Waldorf day-care centres are not the norm in Denmark. For instance, of the 2,803 day-care centres (according to the Statistics Denmark website: [www.dst.dk](http://www.dst.dk)), only 59 are Steiner Waldorf centres (according to the Danish Association for Steiner Waldorf Early Childhood Education website: [www.rudolf-steinerdagtilbud.dk](http://www.rudolf-steinerdagtilbud.dk)). These centres are privately run and accept children aged 0–6 years. Like all Danish day-care centres, the Steiner Waldorf centres must adhere to the national pedagogical curriculum for children aged 0–6 (Ministry of Children and Education, 2020), while also following their own pedagogical ideas and practices.

Among the essential principles of Steiner Waldorf early years pedagogy is a focus on “creative, artistic experiences through domestic and artistic activities” (Nicol & Taplin, 2017, p. 13), which includes singing with children. In Steiner Waldorf early years pedagogy, the practice of singing together is used for many purposes. For example, Rosengren (2022) mentions that it is believed that singing with children furthers their social skills as well as their musical and emotional development. Singing is also used to create a sense of community, while seasonal songs give children a sense of the changing seasons. Rosengren mentions a unique feature of Steiner Waldorf pedagogy, namely that singing is used as a “pedagogical tool” in the management of children’s groups; singing is used to focus children’s attention and guide them from one activity and setting to another.

Thus, for the purpose of this study, a Steiner Waldorf centre was chosen. The centre consists of a nursery (0–3 years) and a kindergarten (4–6 years). The nursery accommodates 12 children, while 26 children attend the kindergarten. Although the two sections share the same building and a garden, they occupy separate parts.

## Method: Psychodynamic infant observation

In order to study the role that singing plays in the daily emotional care of children, the method of psychodynamic infant observation was chosen (Briggs, 2002). This method, originally developed as part of psychoanalytic training, has since been adapted as a tool for researching the lives and relationships of infants and young children (Adamo & Rustin, 2014; Gitz-Johansen, 2017, 2019, 2020, 2022a, 2022b; Briggs, 2002; Datler et al., 2014; Urwin & Sternberg, 2012). The original procedure of psychodynamic infant observation involved observing an infant over a period of time (usually once a week over one year). Each observation lasts one hour, during which time the observer pays close attention to what is happening in terms of both behaviour and displays of emotions. Immediately after each observation, the observer writes down from memory as detailed an account as possible of the observation.

This method has been adapted to be suitable for fieldwork in a day-care setting. The observations have not focused on one child, but rather on groups of children and their teachers. In this study, observations were adjusted to the duration of the singing activities, which often lasted less than one hour (and sometimes a little longer). Singing activities were observed ten times over a two-month period, after which COVID-19 interrupted the study.

For the purpose of this study, the focus of the observations was on singing activities and the role they played in emotional care for children; in particular, attention was paid to (1) how the teachers led the activities, (2) the influence of singing on the children, and (3) children's reactions to the singing.

The focus of the method is on the emotional states of the observed infant and the emotional processes taking place between infant and caregiver (Urwin & Sternberg, 2012), which makes the method suitable for studying singing as a kind of emotional care. A central methodological question is how to obtain information on the emotional states of young children. Here, the present study has drawn inspiration from the concept of *vitality affects* as discussed by Stern (1985, 2010). This concept addresses how internal emotional states become visible in the observable qualities of actions and utterances. A movement has a certain temporality and speed, and an utterance has a specific timbre and intensity, both of which provide information about the internal state expressed in the movement and utterance. Moreover, a verbal sound can be made harshly or softly. A movement can be performed slowly (suggesting hesitancy) or swiftly (suggesting eagerness). Thus, what the observations aim to capture are *how* an action is done and *how* an utterance is made.

The original approach to psychodynamic infant observation mainly used concepts from psychoanalytic theory, and analysis of unconscious processes were central to making interpretations (Briggs, 2002). The present study moves the focus from unconscious processes conceptualized by psychoanalytic theory to intersubjective communication as

conceptualized by developmental theory (Gitz-Johansen, 2022b; Hubley & Trevarthen, 1979; Stern, 1985, 2004; Trevarthen, 1979). The shift in focus and theory places the study within recent developmental theory and research. The main theoretical concepts used in the analysis are *intersubjectivity*, *interactivity*, *intersubjective field*, *holding space*, *affect regulation*, and *imagination*.

The research design was approved by the Research Ethics Committee of Roskilde University. Efforts were made to ensure that no names or other identifying characteristics of the children, adults, or centre involved in the study are mentioned in the field notes. Parents were informed of the project and given the option of not allowing their children to be observed (none chose this option).

In order to produce as detailed an account as possible, field notes were written immediately after the observations had been completed. Analysis of the field notes was conducted by performing a thematic categorization of all observed instances of teachers singing with the children. After the field notes' initial categorization, relevant concepts from developmental psychology were applied to facilitate a theoretical discussion of the observed situations.

## Sharing an intersubjective experience

An initial finding from the analysis of the field notes is that the Steiner Waldorf teachers use singing and accompanying movements to create what Stern (2004) calls an *intersubjective field*. The children's attention was included in this intersubjective field to the extent they paid attention to the singing and participated by singing and moving.

The concept of *intersubjectivity* describes the sharing of an experience by two or more people. Originally, the concept was developed to describe the developmentally important dyadic interaction between an infant and its adult caregiver (Stern, 1985, 2004; Trevarthen, 2008). Later research suggests that intersubjectivity may also form in groups; for instance, Stern (2004, p. 243) suggests the term *intersubjective field* to describe sharing experiences in groups.

Trevarthen (2008) has suggested that the early interaction between a parent and an infant has an inherent musicality. He also mentions that singing games may later be introduced into the intersubjective experience to expand and enrich the musical interaction with new elements and greater complexity.

In the following example from the field notes, the teachers use singing to create an intersubjective field that guides the children towards sitting together on wooden benches:

*Nine nursery children and three teachers are sitting outside in the garden on some logs arranged in a square. The adults then start singing a "circle time song." While singing, the adults move their arms as if they are gathering something in them. While most of the*

*children do not sing audibly, some are moving their lips in sync with the singing. Their eyes and faces are attentive. Their attention seem to enable them to take part in a shared mental space created by the singing.*

In this example, the attention of teachers and children alike is not primarily directed at each other's faces but at the singing and movement. The teachers' focus is not on face-to-face interaction. Some of the youngest children look tired, and they seem to be resting while watching the movements of the other children and teachers and listening to the singing. The hands and fingers of the youngest children move gently as if subtly animated by the movements of the teachers and other children. The slightly older children copy the teachers' movements or the parts of the movements they can remember, and some join in for the parts of the songs they can remember. Some of the children's lips move silently as if they are slowly getting ready to join in the singing.

The teachers are not doing anything in particular to encourage participation, and the children are only obliged to be physically present; they do not have to sing or do any movements. The teachers neither demand nor directly encourage participation. Instead, they provide a framework of singing and movement in which most of the children choose to participate according to their ability.

## **The role of the adults: “holding space”**

A later observation highlights the adults' role in creating the shared intersubjective field through singing:

*The children and adults of the nursery gather on the lawn outside for their daily morning circle time. Three adults and nine children are sitting in a square facing each other on low wooden benches. They sing a morning song with accompanying movements, gesturing with their arms and hands. The adults clearly lead the singing and movements. They sing three different songs with accompanying movements in clear and fairly loud voices. The adults do not visibly encourage the children to participate. The children are only required to be physically present and not to talk or interrupt. Some children move their hands and arms slightly during some parts of the songs. Others move their lips slightly now and then, as if silently mouthing the parts of the songs they remember. The adults' attention seems to be entirely directed toward singing and doing the movements, and they do not give encouraging looks or make encouraging remarks to the children, demonstrate the movements, or visibly encourage them to participate. The adults' singing and movements create a framework in which the children may participate as much or as little as they are able to and feel like doing. The children seem to be listening to the singing, as their attention does not seem to waver; they do not look at each other, talk to each other, or turn around to look at the older children in the adjacent kindergarten section. [...] The adults*



*do not appear to be distracted by the observer sitting among them. As they sing, they do not glance sideways at the observer. They seem confident in the importance of what they are doing, and they sing loudly and clearly with no signs of hesitation or distraction. The adults' attention seems to be entirely on singing the songs and doing the movements. [...] They use the singing to create a mental "space" that surrounds and encapsulates the children psychologically. The effect of this "space" is that there is very little restlessness or "wandering attention" to be seen among the children during the morning gathering. On the contrary, their attention is "held" by the mental space of the singing.*

The adults are creating an intersubjective field, which the children are invited to enter by means of their attention. The children respond by paying attention to the singing; then, their bodies and lips begin to move. The adults remain focused on their role as "lead singers." Ehrlin and Tivenius (2018, p. 19) cite research finding that school and preschool teachers may feel insecure about singing with children, and Kulset (2016) emphasizes the importance of "musical confidence" for preschool teachers, who sing and do "musicking" with children. The Steiner Waldorf teachers in the study all appeared confident in their role as lead singers; they neither glanced at the observing researcher nor displayed any other signs of nervousness or awkwardness. Singing is a ritualized part of their everyday practice; they sing with the children several times a day, which may explain why they appear confident in their role. The importance of singing in Steiner Waldorf pedagogy is underlined by Brown and Rosengren (2022), who describe singing as a key element of daily routines in Steiner Waldorf nurseries and kindergartens.

The term that best describes what the adults are doing is *holding space*. This term is used in some midwifery research to describe midwives' roles in creating and maintaining ("holding") the intersubjective and interaffective field surrounding the termination of a pregnancy (Armour et al., 2020). The role of the midwives is to be attentive and attuned to the physical and emotional states of the woman. In this way, the "space" (intersubjective field) held by the midwife is not a physical space but rather an intersubjective field of awareness and attention which provides emotional support for the woman. In other words, the woman is emotionally and mentally "held" by the midwives.

The role of the singing nursery teachers is similar to that of the midwives in that they use their attention, sound, and movements to provide a mental and emotional intersubjective field for the children in which to exist and, if they wish, participate. The quality of presence may be an important aspect of how the teachers "hold space" for the children. As I have discussed elsewhere, a preschool teacher may be physically present for a child without being mentally and emotionally present (Gitz-Johansen, 2022c). I suggest that the Steiner Waldorf teachers sing while being both emotionally and mentally present, which is visible in their body language and lack of distractedness. Their presence and confidence invite the children to enter into the intersubjective field and thus be "held" by the singing.

## Affect regulation through the intersubjective field of singing

Stern (1985) has observed that an important aspect of intersubjectivity is sharing emotional experiences, which he terms *interaffectivity*: “Interaffectivity may be the first, most pervasive, and most immediately important form of sharing subjective experiences. [...] Early in life, affects are both the primary *medium* and the primary *subject* of communication” (Stern, 1985, pp. 132–133). Interaffectivity may take the form of simply sharing an emotional experience such as joy, sadness, or excitement. However, as pointed out by Schore (2021), the sharing of emotional states between a child and an adult caregiver is also an important precondition for the regulation of the child’s emotional state. This co-regulation of affective states is called *affect regulation*, which is an important aspect of childcare since it not only helps the child move in and out of emotional states but also forms the basis of the child’s later ability to self-regulate (Schore, 1994; Schore & Schore, 2008).

In the next example, the teachers use singing as a way of caring for (co-regulating) the emotional states of a group of tired and upset children:

*In the 0–3 years nursery, three adults are assisting ten children in taking off their outdoor clothing, washing their hands, and going to the toilet. In the adjoining bathroom, a child is crying, and some of the children are looking at the observer with wide-open eyes, seeming not entirely comfortable with the observer’s presence. One of the children starts crying, and a teacher quickly lifts him up onto her lap. It is apparent that the youngest children especially are tired and on the verge of tears. When most of the children have taken off their outdoor clothing and washed their hands, one of the teachers starts singing a song. The oldest children join in the singing, moving their hands and arms to it (the song appears to include some illustrative movements). Some of the youngest children seem to begin listening to the singing, and their hands twitch a little as if animated by it and by an impulse to join in the movements. While a few younger children still need some comforting and assistance from the adults, and the youngest child still has his dummy in his mouth, the atmosphere of the singing slowly begins to replace the tired and unhappy mood. Before long, the attention of all the children seems directed towards singing, and now nobody is crying or looking upset, and nobody is anxiously keeping an eye on the observer. Then, one of the teachers says: “Let’s see if we can hear the fairy-tale bell ring.” All of the children keep very quiet as they listen and watch the closed door to the nursery’s main room. A quiet ringing of a bell is heard from behind the door. Now, they all seem captivated by an atmosphere of quiet expectation and fascination. The teachers gather everybody into a line, holding hands and singing a little snake song (“slither-snake, fairy-tale-snake”) as they walk together (like a “snake” of children) into the adjoining room to listen to a fairy tale before lunch.*

During this observation, the function of singing as creating an intersubjective field is expanded. The role of singing is not only to share the sound, movement, and story of the



song; rather, the shared experience here of singing together has helped to alleviate the tense and slightly unhappy atmosphere in the room. This is done by inviting the children's awareness into an intersubjective and interaffective field where the emotional tone is set by the singing rather than by the children being tired and upset. At the beginning of the observation, the children are worn out and on the verge of crying – and some actually begin to cry – and need to be comforted. Sensing this “fragile” atmosphere, and not wanting to cause more children to cry, the researcher asked if he should leave the room, but the teachers urged him to stay (this has not been included in the above example). In previous research on Danish nurseries, such situations have called for a great deal of individual comforting, where the teachers hold, hug, gently rock, and verbally comfort each child until they are soothed and calm (Gitz-Johansen, 2019). However, in this situation, the teachers start singing, and as the song envelops the children's awareness, one by one they enter into the shared intersubjective and interaffective field created by singing. Soon, then, the atmosphere created by the singing replaces the sad atmosphere of tired children on the verge of crying. A situation dominated by signs of fatigue, whimpering, and crying is transformed to a situation where all attention is on the singing, and where none of the signs of mild distress can be detected. Instead, all attention is on the song and later on the quiet ringing of the fairy-tale bell. This transition in atmosphere can only secondarily be explained by the caring actions of individual comforting and assisting. Indeed, it is primarily the singing that offers an intersubjective and interaffective field into which the children enter and are affected and “held” by.

The “classical” situation of emotional regulation as described by Schore (1994, 2019) is the mother–infant dyad; yet studies have shown that music is able to influence the emotional state of the listener and thus act as emotional regulation (Corbeil et al., 2016; Thoma et al., 2012; Winsler et al., 2011). Recent research has shown that “singing is effective in maintaining infants' composure, delaying the onset of distress [...], and modulating arousal levels. [...] [I]n infants who are initially calm, it may be comparably effective in soothing distressed infants” (Sanfilippo et al., 2022, p. 16). Other research has found that singing (lullabies) is used cross-culturally as a calming and soothing emotion regulation to help babies go to sleep (Milligan et al., 2003).

The observation above suggests that in a day-care setting, comforting and soothing singing may work as a more effective group-based way of regulating children's emotional state than using individual affect regulation practices.

## **Imagination and affect**

During the observation, the regulatory effect of singing was not only emotional but also physical, as the teachers used singing to move the children from one room and one activity to another. For instance, while singing the “snake song” did not automatically lead the children

along as if in a trance, this use of singing guided the children as they moved from one room to another. It is likely that the effect of the singing is enhanced by including the image of a snake in the verse (“slither-snake, fairy-tale-snake”). The mental image of being part of a long “snake” probably stimulates some level of fascination in the children’s minds as they move along, helping to maintain their attention and guiding them from one room to the next.

In other observations, the role of mental images (imagination) is even more visible, as in the following situation, where the teachers assemble the 3-6-year-olds in the kindergarten cloakroom:

*Today is a girl’s birthday. So eighteen children, four teachers, two student teachers, three parents and grandparents, and one researcher have gathered in the cloakroom. One teacher leads the children in singing a song where they pretend to dig up something using their arms like shovels or excavators. The birthday girl is the first who gets to decide what they are pretending to dig up. The children then take turns deciding what they are digging up. Most of the children engage in this activity with some enthusiasm. After a few rounds, one boy suggests that they are digging up lava, and a few other boys react to this idea with visible enthusiasm. One boy in particular comes alive: he begins moving more energetically, and his eyes widen with excitement in response to the idea of digging up lava. The teacher then says that they must all wear protective gloves to prevent the lava from burning them. While the teacher and most of the children then pretend to put on protective gloves, the excited boy says that he does not need them. He seems to suggest that his hands are so powerful that they can hold molten lava without getting burned. The atmosphere in the room is very lively now. Another boy is captivated by the atmosphere and starts talking in a loud voice about a mountain. He emphasizes that this mountain is no ordinary mountain. When you look into it, you can see that it is a volcano with molten lava visible in its crater. He then says that he has seen this mountain in an episode of the children’s TV series Paw Patrol. As he speaks, his voice and face are animated. The teachers allow this input to the joint activity, but then stop the boy’s energetic contribution and lead the collective focus back to the birthday girl and the joint singing.*

During this observation, singing is again the instrument through which a shared intersubjective field is created; but in this case the emotional influence of shared mental images also plays an important role. The children can decide what they pretend to dig up, and when a boy chooses to dig up red-hot lava from an active volcano, this image exerts an exciting influence on the other children. Perhaps the image of red-hot lava has a stimulating and energizing effect on them as they keep this image in their minds while singing the verse and pretending to dig with their hands. The images of red-hot lava and an active volcano are more exciting to some of the children than others, and a couple of the boys in particular are very stimulated and visibly enthused by these mental images.

In another situation, the adults and kindergarten children are assembled on a lawn outside, where they stand in a circle singing and making accompanying movements. In the

beginning, most of the children look tired, but little by little, they are energized by the songs' energetic rhythms, the vigorous accompanying movements and the fascination exerted by stories and images:

*The kindergarten children are out in the garden doing collective "singing games." The three adults and fifteen children stand in a large circle. They sing songs and make the accompanying movements: they clap, run about, and gesture to match the stories of the songs. They pretend to gather chestnuts and bake. Most of the children look tired, and some of them stand with tired faces and, while seeming to pay attention to the singing, do not sing along or move about a lot. A few other children sing and move more energetically. [...] The most animating moments for the whole group are when they repeat simple rhymes or clap in unison, when everybody participates energetically. The adults start laughing a bit, apparently not because anything is funny as such, but as a reaction to the song's lively movements and tone. [...] One song tells the story of some little gnomes who live underground with their treasure, and who dig their way up and stick their heads above ground. As part of this singing game, both children and adults squat down and pretend to dig as if they are the gnomes, or perhaps they are pretending to look for the gnomes. [...] Now it is not the liveliness of the singing and movements that animates the children. Rather, they seem excited by the idea of little gnomes hidden underground with their pots of gold. This imaginative idea seems to produce enough fascination that even the youngest and sleepest of the children are enlivened and drawn into the singing game. Perhaps the mental image of underground gnomes with their treasure is sufficiently fascinating to make all the children participate actively in the joint movements and shared mental space of this singing game.*

In this example, the tired children are energized by the lively rhythms and movements of the singing. The vitality of the singing affects the children and makes them "come to life." Nakata and Trehub (2004) have shown that important features of maternal singing include stereotypy and repetitiveness, which sustain a child's attention and interest. Sanfilippo et al. (2022) suggest that the repetitiveness typical of maternal singing creates a sense of rhythmic ritual, reinforcing the child's interest and enhancing the sense of cohesion between the participants (typically, a parent and a child). During the observation, the rhythms and movements of the singing reinforced a sense of "group cohesion" or an intersubjective field.

Further, the mental imagery of the song, in this instance underground gnomes and their gold, seemed to catch the children's interest and make them both participate in and become influenced by the shared intersubjective field. In a survey of research on the role of imagination in children's development, Lillard (2013) points out that imagination affects people psychologically and activates the same areas of their brain as if they were doing or seeing things in reality. Lillard suggests that the most important effect of imagination may not be long-term developmental goals but rather the immediate experience of joy and liveliness: "I know of no studies of the level of *joie de vivre* associated with play, but it might be

the strongest reason to incorporate it in children's lives, during or outside the school day" (Lillard, 2013, p. 152). Bonnár (2015) points out that the creation of inner images is part of what makes it fascinating for a child to listen while their parents are singing lullabies to them. The observations resonate with Lillard's and Bonnár's findings in that the kindergarten children seemed fascinated and animated by imagining an experience of underground elves and their golden treasure. Further, the joy of this experience was probably enhanced by the fact that these children did not have this experience alone but shared it with the other children and adults in the kindergarten. As related to the work of Winnicott (2005), it is possible to place the imagery in the "potential space" created by the shared intersubjective field in which both children and teachers participate.

## Conclusion and discussion

This case study shows how singing is used to create an intersubjective field in which the children are invited to participate. The adults' role is also highlighted, showing how the adult singers are "holding the space," which enables a shared intersubjective field of singing to form between the participants. This intersubjective field is also shown to be an inter-affective field in that the singing includes and co-regulates the participants' emotional states. Most noticeable is the episode in the nursery cloakroom, where singing shifts the atmosphere of the room and takes the place of individually soothing and comforting tired toddlers. Lastly, the role of imagination is highlighted, since most songs contain some element of storytelling and imagery, which may catch and maintain the children's interest by stimulating their fascination with stories and images. Apart from being emotionally regulated by the singing's intersubjective field, the psychological lives of the children seem to be enriched by their singing experience. The participating children seem to experience high levels of joy and excitement by joining in on the singing. They often seem vitalized and uplifted by the singing; this is especially true when the singing is enriched with exciting images and stories (digging up lava or looking at tiny underground gnomes).

A limitation of the findings in the present study is that Steiner Waldorf centres are relatively unusual in Denmark, and similar practices are unlikely to be the norm in other forms of day-care. Further, only one day-care centre was observed, and it is unknown to what extent musical practices in other Steiner Waldorf centres are similar. However, a description of the observed singing practices may be found in a Danish book on singing with children that is intended for Steiner Waldorf day-care teachers (Brown & Rosengren, 2022), making it probable that there are similar practices in other Danish Steiner Waldorf day-care centres. Finally, the study is not longitudinal and does not monitor individual children's emotional development in connection with the singing practices. Therefore, developmental perspectives can only be inferred from theory and the other studies mentioned in the research survey.

Music and singing have long been known to have positive effects on children's emotional development. In the Danish context, the educational movement known as *reform-pædagogik* (progressive education) has emphasized the importance of creative and cultural forms of expression, including music and singing, for children's overall development (Broström, 2020). In the broader European context, progressive educators such as Friedrich Fröbel, a forerunner of the *reformpædagogik* movement, have promoted singing and musical activities as ways of promoting children's development (Tovey, 2013). In the Norwegian context, Kulset and Halle write: "Group singing can facilitate many positive outcomes, such as social bonding, increased sense of well-being, language acquisition, and empathy promotion, not to mention the emotional and aesthetic pleasure of music as an art form [...] One would therefore assume that singing is an obvious part of everyday life in all ECEC settings" (Kulset & Halle, 2020, p. 304). However, in Denmark today, music and singing are probably not emphasized in many ECEC settings. Due to changes in preschool teacher training over the last three decades, the emphasis on singing and music has gradually decreased; since 2014, it has been possible to complete this training without having taken a single lesson in music and singing (Holgersen & Holst, 2020).

While more individualized emotional care activities, including comforting, soothing, encouragement, and the provision of stable attachment figures are indispensable parts of childcare in institutions (not to mention families), collective singing activities play an important role in organizing daytime activities (e.g. gathering and moving children) while providing developmentally beneficial group-based care.

## Author biography

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