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“But I want to talk to you!” Perspectives on music therapy practice with highly verbal children on the autism spectrum

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ABSTRACT

Introduction: This reflective paper offers a perspective on music therapy practice that explores how shared music experiences may provide opportunities for highly verbal children on the autism spectrum to expand their engagement in social play.

Methods: Relevant literature from the fields of music therapy, child development, and the neurodiversity movement are discussed alongside the authors' reflections on their work with children who bring verbal and gestural motifs into music therapy sessions. The case examples highlight moments where the music therapist transformed the child's verbal and gestural material into interactive music-based games.

Results: This paper proposes practice considerations for music therapists working with highly verbal children that centre around the therapist's intention to support the child to interact with freedom and joy through musical play and foster relationships with others. These intersubjective moments within creative musical play experiences may create conditions for the child to explore different ways of being, interacting and communicating.

Discussion: Musical games within the context of music therapy emphasise the relational value of a mutually created and shared world of meaning between the therapist and the child. The child's verbal strengths are not simply acknowledged; they become the foundation for musical-play experiences that aim to expand their repertoire of social and relational experiences.

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KEYWORDS Musical play; music therapy; neurodiversity; verbal language; autism spectrum

Music therapists have a long history of supporting people on the autism spectrum to reach their developmental potential and participate in their communities (Geretsegger, Elefant, Mössler, & Gold, 2014; McFerran, Lee, Steele, & Bialocerkowski, 2009; Reschke-Hernandez, 2011; Wigram & Gold, 2006). Pioneering music therapists sought to address a multitude of therapeutic goals, however, working to improve social communication skills was dominant, including developing expressive and receptive communication, use of voice and language, and engaging in relational musical experiences with the therapist and/or peers (Reschke-Hernandez, 2011). Music's perceived capacity to offer people with

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significant disabilities a form of communication beyond words and consequently foster relationships with others was the premise for various music therapy approaches (Aigen, 2014). While there are numerous descriptions of music therapists using a variety of music experiences to promote communication and relational skills with children on the autism spectrum who are either non-verbal or have limited verbal skills (Alvin, 1978; Kim, Wigram, & Gold, 2009; Nordoff & Robbins, 2007; Schumacher & Calvet, 2007; Wigram & Elefant, 2009), literature exploring music therapy outcomes with children who already have good language skills is scarce. This reflective essay draws together our clinical experiences and reflections on the literature and proposes practice considerations for music therapists who wish to support highly verbal children with autism to experience different ways of being, interacting and communicating through creative musical-play. We begin with a case vignette from our clinical practice that encapsulates some of the challenges we have experienced working with children on the autism spectrum who are highly verbal. Later, we return to this case to reflect further on the literature and consider future directions for music therapy practice. Rather than offering an in-depth case study analysis, we intend that the case vignettes will help the readers relate theory to practice.

Case vignette: The music therapist asks, “Where is the music?”

I met Cassie, who is on the autism spectrum, when she was 6 years old, and we had weekly music therapy sessions in her home. Cassie always greeted me enthusiastically at the door. In one of the early sessions, she said, “I’ll show you my game on my computer, and I will draw a picture, do you like that? Ok”, and then she ran off down the hallway. Cassie spoke rapidly and started the conversation as if we were already in the middle of it. She wanted to show me all her precious toys and objects and tell me about her day at school. Cassie returned, and looked through my instrument bag. She played some of the instruments fleetingly but ignored my question about what music we might play together. Cassie suddenly ran off to her bedroom and returned with a picture she drew at school to show me. It had only been a couple of minutes, and already I was feeling overwhelmed by the number of topics Cassie had talked about. I moved over to the sofa in the living room and unpacked my guitar and a steel drum that was tuned to a pentatonic scale. Cassie looked towards the steel drum but did not play it. Instead, she continued her rapid style of speech, saying “we’re going to play this one: Mrs MaMuffin came to get a cake. She was so hungry.” While Cassie swiftly spoke, so fast that I struggled to understand her, she jumped up on the sofa and walked repeatedly from one end to the other. She continued the story, saying “it was just baked, and she went to see, and went ‘splash, bang!’ (hitting the steel drum twice), and Mrs MaMuffin died (flopping herself down on the sofa and closing her eyes).” With my guitar and singing, I tried to emphasis the emotion of the story she had shared. Accompanied by some minor chords, I sang a sliding melody with the words “oh, no! Oh! She died! She went splash, bang!” Cassie corrected my understanding, saying “no, the cupcake exploded and she died.” In all this time, Cassie had only hit the steel drum twice, and talked rather than sang. She also acted out the story: walking to the “shop”; picking up the “cake”; and then “dying” on the sofa; but her movements were not particularly rhythmical. Cassie appeared more interested in telling me a story than engaging in conventional musical play.

This short excerpt from Cassie's music therapy session highlights our experience of the challenges that can occur when trying to musically engage with children on the autism spectrum who have substantial verbal language skills. In reflecting on our work with children like Cassie, we note that it sometimes feels like musical interactions are secondary to verbal interactions, and that the therapist is working hard to find ways to engage the child in musical play. We are purposefully using the term "highly verbal" rather than "high functioning", since disability-rights advocates consider the label "high functioning" to be problematic due to the fact that ability can change according to personal and social circumstances (Sinclair, 2012). We consider our therapeutic approach to be person-centred and humanistic (Abrams, 2015), with a focus on relationality, exploring identity, and illuminating strengths rather than seeking to normalise behaviours and symptoms that may be viewed as pathological by a medical model of disability (Winter, 2012).

Diagnostic perspectives and the neurodiversity movement

The release of the DSM-5 in 2013 included a significant update of the diagnostic criteria for autism and streamlined previous sub-categories, such as Autistic Disorder, Asperger's Syndrome, and Pervasive Developmental Disorder Not Otherwise Specified, into one umbrella classification of Autism Spectrum Disorder (ASD) (American Psychiatric Association, 2013). However, a diagnosis of ASD does little to convey how an individual may be impacted in their daily life in the two core areas of challenge: social communication and restricted, repetitive behaviours. From a medical diagnostic perspective, severity of ASD in the DSM-5 is determined according to three broad levels: Level 1 – requiring support; Level 2 – requiring substantial support; and Level 3 – requiring very substantial support. In keeping with the notion of ASD being a spectrum condition, the DSM-5 provides examples of social communication abilities within each level of severity. Within "Level 1 social communication support", a person's skills are described as "able to speak in full sentences and engages in communication but whose to-and-fro conversation with others fails, and whose attempts to make friends are odd and typically unsuccessful" (American Psychiatric Association, 2013, p. 52). At the other extreme of Level 3, a person's social communication is described as being characterised by "few words of intelligible speech who rarely initiates interaction and, when he or she does, makes unusual approaches to meet needs only and responds to only very direct social approaches" (American Psychiatric Association, 2013, p. 52). While broad, these descriptions highlight that it is the use of communication skills within social contexts that distinguish people on the autism spectrum from other speech and language conditions or intellectual disabilities.

Society's understanding of autism has changed considerably over the years and continues to evolve as a result of autism advocacy groups who have campaigned for an acceptance of neurological differences (Silberman, 2015). Within a neurotypically dominated society, social communication skills are highly valued and can be a key factor in social exclusion for those who struggle to initiate social interactions and communicate verbally (Cohen, Brown, & McVilly, 2015; World Health Organization, 2011). In contrast, critical disability theory proposes that human differences should be embraced and recognised as contributions to the richness of "neurodiversity" (Silberman, 2012; Straus, 2014). However, despite autism advocates' efforts to

position neurologically based differences as being a natural part of human diversity similar to gender and sexuality (Winter, 2012), societal attitudes vary greatly. For example, a recent report surveying community attitudes towards autism in Australia highlights a variety of viewpoints. While 87% of respondents from the general public reported they have had contact with a person on the autism spectrum, only 4% of autistic people and their families believe that people in the community know how to support them (Jones, Akram, Murphy, Myers, & Vickers, 2018). These results suggest that individuals across the autism spectrum, including those who have verbal language, may still face challenges in society that negatively impact their social inclusion and mental well-being.

A reflection on music therapy literature for people on the autism spectrum

Pioneers of music therapy working with people on the autism spectrum, such as Juliette Alvin, Paul Nordoff and Clive Robbins, developed models of music therapy based on broad humanistic values such as supporting creative expression of the self, autonomy and agency, and relationality (Abrams, 2018). Nordoff and Robbins also developed evaluation scales of music therapy focused on tracking change in the child–therapist relationship within musical experiences, and the child’s musical communicativeness (Nordoff & Robbins, 1977, 2007). Music therapy was, to a great extent, positioned by these early pioneers as supporting socially isolated individuals to connect musically (that is, non-verbally) with others.

The scope of music therapists’ work with children on the autism spectrum has expanded over the years to address skills across a wide range of domains, such as cognition and academic skills (Kern, Rivera, Chandler, & Humpal, 2013), and improving motor functioning through auditory rhythmic cueing (Hardy & LaGasse, 2013). However, the concept of music as a form of non-verbal communication which can offer either an alternative to verbal communication or support the child to develop verbal (or more conventional) communication (Salomon-Gimmon & Elefant, 2018) remains a central paradigm in music therapy practice (Aigen, 2014). Schumacher, for example, views ASD primarily as an affective disorder, and therefore advises that music therapy is of particular relevance “where speech is not possible or the person is not communicative and non-verbal. Emotional relationships between people must be first developed. Only then can speech be of use for the meaningful mentalisation of emotional processes” (Schumacher, 2014, p. 122).

Beyond working with children with autism, Aigen (2014) provides a deeply compelling philosophical argument for music experiences being a valuable mode of human expression and connection which sets music therapy apart as a means for therapeutic change. Carolyn Kenny (1989) theorises that a “musical space” is created between the music therapist and the client through freely playing music together. As the therapist and client get to know and trust each other musically, there is a growing sense of play and experimentation between them. Kenny’s notion of “the field of play” (p. 85) highlights the client’s creative process within aesthetic musical play shared with the therapist in a trusting relationship. These therapeutic conditions allow for “a space of experimentation, modelling, imitation in sound forms which express, represent and communicate significant feelings, thoughts, attitudes, values, behavioural orientations, issues of growth and change” (Kenny, 1989, p. 82). Similar

to the way children with secure attachment have confidence to explore the world around them, this sense of freedom in musical play is considered vital in supporting personal growth (Kenny, 1989).

Many music therapists' approaches are informed by theories from infant development, including attachment theory (Ainsworth & Bell, 1970) and Daniel Stern's theories of intersubjectivity and forms of vitality (Pavlicevic, 1990; Stern, 2000, 2010; Trondalen, 2016; Wigram & Elefant, 2009). A connection between Nordoff and Robbins original concepts to an intersubjective theory of human psychology that is grounded in early non-verbal infant-caregiver interactions has also been proposed (Birnbaum, 2014). Music therapists who are influenced by these theories typically draw parallels between the ways infants and caregivers primarily relate to each other via non-verbal, cross-modal forms that rely on sensitive affect attunement from the caregiver (Stern, 2010). Winnicott's object relations theory has also been adopted by some music therapists to explain how freely playing musical instruments can offer children opportunities to explore patterns of relationship and their sense of self (Levinge, 2015). However, as we discuss further on, some children on the autism spectrum use objects primarily for self-regulation.

Trondalen (2016) emphasises the music therapist's focus on intersubjective affective communication, explaining "there is a particular focus on the emergence and co-creation of interpersonal meaning through music as a non-verbal means of communication" (p. 9). Within infant development theories, the goal (or perhaps the by-product) of intersubjectivity is the creation of a shared world of meaning between the child and the caregivers that manifests in mastery of symbolic communication through language. There is a sense that the child gains more autonomy and an understanding of their core self once language emerges. Trondalen (2016) reflects on the impact of language on relational experiences and regulation of affect, saying

on one hand, using words represents a new opportunity to develop, create, and experience stories and narratives about oneself. On the other hand, using words reduces the opportunity to share and describe the immediate sensation of the lived experience, because the close immediacy of the sensed and experienced disappears in the distance created by words. (Trondalen, 2016, p. 29)

Perhaps this sentiment is why music therapists privilege a non-verbal, musico-relational mode of working with children who have neurodevelopmental conditions, whether they have verbal language skills or not. While there has been much debate about the role of verbalisation in music therapy practice as a way for clients to reflect on their music making experiences (Aigen, 2014), in our experience of working with children on the autism spectrum it seems that a focus on music making is assumed. For children like Cassie, who seem more interested in using verbal expression as their primary form of play and connection, we are left to question the goal and direction of music therapy in these circumstances.

Early music therapy methods, theory and research focused almost exclusively on meeting the needs of children with more severe autism symptoms. This is not surprising, since prior to the broader umbrella of DSM-5, the diagnostic criteria for "autistic disorder" (American Psychiatric Association, 2013) also focused on people with severe symptoms (Silberman, 2015). Music therapy methods therefore often aimed to capture the interest and engagement of socially isolated children, or to provide a means of self-expression and connection to others for those who had little

or no speech (Geretsegger et al., 2014; Reschke-Hernandez, 2011). In fact, there are very few instances of published research describing music therapy with individuals on the autism spectrum with well-developed verbal language. Baker and Krout (2009) evaluated the use of song writing with an adolescent with Asperger's syndrome in two contexts: face-to-face sessions and online sessions via videoconferencing. While the focus of this study was to explore whether videoconferencing sessions could support song writing methods in music therapy, both modes of session delivery aimed to support the young person to improve social interaction with others, identify and express emotions, and develop music skills that could be used in everyday life leisure activities (Baker & Krout, 2009). Of note is that the method of choice was song writing, which involved a 10-step structured protocol where the client was encouraged to brainstorm lyrics through verbal discussion. The development of the musical material for the song was therefore highly structured and relied on discussion of musical ideas.

Oldfield and Franke (2005) describe using verbal storytelling within psychiatric assessments of children where a diagnosis of autism and other conditions may be unclear. As part of the assessment session, the therapist invites the child to improvise a story, and then the child's verbal, musical and non-verbal materials are incorporated into a collaborative song-story improvisation. The therapist's intention is to assess the creative content of the child's ideas, as well as the way they interact with the therapist to bring their ideas to life. Oldfield and Franke note that the musical contributions of the child and therapist during the verbal story often motivate the child to continue the interaction and "fuel" their imagination (Oldfield & Franke, 2005, p. 41). However, the authors also propose that caution is needed, highlighting a case where "the music therapist elected not to introduce the improvised story with a child who had very obsessional language ... [because] she suspected [the song-story] would be meaningless and would very quickly become totally centred around the child's customary obsessions" (Oldfield & Franke, 2005, p. 44).

Thompson (2018) presents a case study of her work with "Joey", a 6-year-old boy on the autism spectrum, who similarly had well developed verbal language skills. Joey showed very little interest in playing musical instruments or singing, but instead tried to play with the music therapist by acting out stories from movies, television shows and books. He used the musical instruments as props in his stories rather than for their music making potential. Thompson describes how her improvised interactions with Joey felt as though they were collaborators in an emergent musical theatre production, where Joey was the script writer and choreographer, and she was the composer. Improvised role play and storytelling featured predominantly in the 5-months of music therapy, since this was the only approach that engaged Joey interpersonally. The analysis of the case study showed that Joey's creativity developed over the 5 months, as seen through his ability to generate more original story ideas beyond those based solely on existing movies and books (Thompson, 2018). We will return to discuss this case further on in the discussion.

The intersection of play and music making

While Baker and Krout (2009) research focused on an adolescent, and therefore play-based methods may arguably be less relevant, Oldfield and Franke's (2005) song-story approach and Thompson's (2018) case study of 6-year-old Joey raise questions about

how music therapy may support creativity. Joey's case shows how the music therapist's improvised music scaffolded Joey's emerging verbal story themes and seemed to encourage him to expand his creative freedom and therefore broaden his field of play. Even though Joey did not engage in conventional music-making, the flow of (non-verbal) music around his (verbal) story ideas may have created a meaningful context for the child and therapist to collaborate in play together.

Play is widely considered to be vital for healthy human development, highlighted by the fact that children who have limited opportunities for play often present with developmental delays (Lillard, 2015). Since Piaget's theories of the early 1960s, play has been popularly viewed from a social-cognitive perspective where the social interactions occurring during play ultimately support the cognitive development of young children (Piaget, 1962). However, these social interactions are grounded in human relationships, and so other theorists such as Winnicott have proposed that play also holds the key to an individual's emotional and psychological well-being (Winnicott, 1971).

From Winnicott's (1971) perspective, play provides pleasure and is a kind of departure from the real world. This departure from reality does not detract from the seriousness of the game, since there is a significant emphasis on imaginative creation. The game is therefore a dialectic between the interior and the exterior, between the real and the imaginary. Winnicott (1971) proposes that the game is built upon transitional objects (toys or other everyday items) which emerge into the game-play and create a potential space for creative exploration. The game needs to have several conditions in order for it to exist and therefore may be fragile. For example, the game should flow and have elements of change; it should contain exciting elements, but not go beyond excitement, since then it may overwhelm the players and lose the sense of game-play. The play should also exist within clear limits, such as containing a beginning and an end. Play skills are therefore often lacking in individuals who have difficulty discerning between external and internal realities (Ogden, 1989). For example, play exhibited by children with autism may be characterised by activities/games that are repetitive or thematically static, and/or it may be difficult to discern any creative development between or during the play sessions (Baron-Cohen, 1987). We now reflect further on our work with Cassie to highlight the different ways children on the autism spectrum may engage in mutual play and the potential for music experiences to create a space to explore relationality.

Case vignette: Creating opportunities for mutuality in the creative process

Over the next few sessions, Cassie continued to enjoy making up short stories that I set to music. On this occasion, Cassie began the session by bouncing on the sofa. When I accompanied her with music, she told me to stop playing, and seemed to be engrossed in the sensation of bouncing. I sat still and watched her; offering my attentive presence as if I was an audience for her movement performance. When she stopped, I showed her a soft toy that was shaped like a ball with arms, legs and a face, and tried to spark her interest in creative mutual play. Cassie grabbed the toy and laid down on the sofa. I asked her "are you pretending to be a baby?"; and she said "no, I'm being a kitty, and this is my ball". Lying on her back, Cassie kicked her legs up in the air, and seemed to be role-playing the movements of a cat. I improvised a light and joyful musical motif,

exclaiming “oh kitty, oh kitty, playing with your ball”. This time, Cassie accepted my musical accompaniment to her play. She laughed and kicked her legs again, and then gently threw the ball away. I laughed too, and she said, “that’s how it goes!” I retrieved the toy and repeated the musical motif. Cassie repeated her actions, and once more deliberately dropped the toy. This time when I picked it up, I pretended to be the cat’s owner. I playfully interrupted the song and exaggerated my voice, exclaiming “Ooooooh!” Cassie laughed, and together we had created a sequence for a simple game: the toy drops, the song is dramatically interrupted, the toy is returned to kitty, the song resumes . . . the toy drops, etc. With each repetition and drop of the ball, Cassie laughed and became more and more lively in her movements and vocalisations as she enthusiastically role-played the cat. She threw the toy in different directions and at different points in the song, so her play showed some signs of flexibility, but only to a point. After ten minutes of this simple repetitive game, Cassie’s emotions were becoming more elevated but there was no further development in the story. I wanted to create an opportunity for us to mutually develop the play, and so I introduced a new idea to the game. I played some quieter music on the guitar and sang about kitty becoming tired. However, Cassie explosively shouted “do the kitty song!” I followed her demand and re-introduced the “oh kitty” motif. Cassie continued to dismiss my attempts to introduce new ideas, and after several interjections, Cassie quickly explained “I’m the kitty, and you’re the one who sings and goes to get the ball, but don’t complain, just go get it.” While I felt it was positive that an extended interaction had occurred (nearly 20 minutes), it seemed that the more I tried to contribute my own ideas to the play, the less tolerant of the change Cassie became. At this point in the therapy process, Cassie seemed to prefer leading the play ideas, and found more pleasure in a static experience than a mutually constructed creative flow.

Supporting creative play in children on the autism spectrum

Our sense that Cassie struggled with mutually negotiated creative ideas in the case vignette above highlights that developing the *quality* of play in the context of relational dynamics can be a relevant focus for children on the autism spectrum, even when they have substantial verbal language skills. Further, children on the autism spectrum may have difficulty with emotional regulation and seek out two types of self-regulation (Tustin, 1990). The first type is through objects and the second is through gesture and body movements. When an object/gesture is used for regulation, the child may interact with it to increase/decrease sensory stimulation. Engaging in these sensory activities may limit the child’s participation in creating games based on imagery and fantasy, and therefore theoretically interfere with developing a rich inner world. Different to Winnicott’s (1971) notion of the transitional object, here the child may not consider the object as a bridge between the inside and the outside world but rather as a sensory motor experience (Tustin, 1990). Reflecting on Cassie’s kitty game reveals some of the complexity involved when trying to understand the needs being met by the child’s game-play. In the early phase of the kitty game, it could be that holding, squeezing and throwing the ball was pleasurable primarily from a sensory perspective. However, Cassie also used the ball as a transitional object to create a story about a cat upsetting her owner, indicating a level of enjoyment in creative play with the therapist. Further along in the play, the sensory stimulation seemed to become the focus once again as Cassie rejected the

therapist's attempts to develop the story. Instead, throwing the ball and giggling appeared to be most important to her enjoyment and social engagement.

Reflecting on the literature presented, we consider the common thread to be that play has the potential to foster relationships with others in important ways, since the child develops relational awareness and understanding through seeing and experiencing the reactions of the other. In our clinical experience with children on the autism spectrum, we have observed that the child's play may outwardly appear to be more like a repetitive ritual. Alvarez (1992) discusses the importance of the therapist's involvement during children's seemingly repetitive and ritualised activities as helping them to "come to life" (p. 201). Empathetic interactions between the therapist and the child during play experiences are recommended, while at the same time the therapist reflects on the interpersonal dynamics between them (Alvarez, 1992). While these repetitive qualities within the child's play might be framed pathologically as perseveration by some professionals, music therapists may view the child's repetitions as attempts at musical intersubjectivity with the therapist (Birnbaum, 2014; Trondalen, 2016).

Music therapy considerations when working with highly verbal children

In addition to the two publications of single-case research studies described earlier (Baker & Krout, 2009; Thompson, 2018), Epstein (2018) conducted a qualitative study where she interviewed six music therapists from Israel about their experiences of working with children with verbal communication skills. Similar to the theoretical position of Tustin (1990) and our reflections on the work with Cassie, the music therapists in the study reported that even though a child's language skills may be strong, other qualities such as sensory and emotional regulation, and their sense of continuity within play activities and across sessions often require support. Music therapy methods such as improvisation, adapting familiar songs, and song writing were commonly used by the music therapists to engage the child in mutual play experiences. The music therapists noted that even though the child may not actively participate in music making, when the therapist added music to the children's object play or role play they appeared less anxious and more in control of their emotions. Further, the music therapists described how music can bring a sense of continuity to the play by connecting past, present and future (Epstein, 2018). Similar to the vignette of Cassie above, several participants described improvising a song to accompany the child's non-musical play in order to interpret their play actions with musical motifs. Continuity was fostered in different ways through this supportive musical environment. Sometimes the children were observed to engage in the play activity for an extended period of time (as Cassie did), and perhaps expand on their play ideas. Other children were able to request the musical motifs in subsequent sessions, allowing the game to be revisited and expanded. At times when the child did not directly participate in the music making, the music therapists still considered that the "musical infrastructure" (Epstein, 2018, p. 28) they provided supported the child's interpersonal engagement, memory and attention.

Supporting play skills in children on the autism spectrum could be seen as valuable beyond early childhood. The features of autism seem to create less-than-optimal opportunities for play, since children on the autism spectrum have been found to display less positive affect, social attention, social engagement and enjoyment in social play compared to typically developing and developmentally delayed children (Hobson, Lee, & Hobson, 2009; Jackson et al., 2003; Kasari, Huynh, &

Gulsrud, 2011). Music therapists working with highly verbal children on the autism spectrum have noted the important role of music in creating a playful environment (Thompson, 2018), and the way musical interpretations of the child's words and actions seem to add more vitality through cross-modal representations (Epstein, 2018). While children on the autism spectrum can often engage with the more mechanical aspects of play (Hobson et al., 2009), music therapists have described how they intentionally use musical frameworks with the aim of exaggerating emotional expression and increasing the child's awareness of others and joy (Carpente, 2017; Epstein, 2018; Thompson, 2018). Music therapists who have tailored their approach to musically support the child's verbal storytelling or their play with non-musical toys/objects have described various outcomes. The case study analysis of "Joey" described earlier found that his interpersonal skills and creative ideas expanded. At the start of the therapy, Joey relied on scripted stories from movies and television programs to scaffold his play routines. By the end of 5 months of music therapy, Joey began to generate original story ideas for play and initiate interactive games with the therapist more frequently (Thompson, 2018). The music therapists in Epstein's (2018) study similarly described various ways the children responded to the increased affect that music-based cross-modal methods brought to the play. For example, the children were observed to use their voice with a greater variety of intonation, improvise melodies, and initiate more imaginative play activities.

One of the many skills of the music therapist is in finding a point of connection and then scaffolding a musical space that can ultimately become a "field of play" (Kenny, 1989). In the scant literature available focused on highly verbal children on the autism spectrum, various music therapy methods are described, suggesting that there is no single way to foster a music-based shared world of meaning between the therapist and the child. Within Epstein's (2018) interview study, some music therapists described using vocalisations to support protomusicality as a fundamental way to cross-modally match the child's non-musical play actions. Through exaggerating changes in dynamics, intonation, and creating anticipation or tension through a combination of timbre, pulse and pitch, the music therapist can both attune to the child's actions and add vitality (Epstein, 2018). Similar to Stern's (2010) examples of early interactions between mothers and infants where mothers expand and increase the infant's range of experience (Ammaniti & Ferrari, 2013), the music therapists interviewed described using vocal sound effects, decrescendos, whispering and more. By doing so, the music therapists described how the child's play was emotionally expanded and enriched (Epstein, 2018). In addition to these playful vocalisations, music therapists working with children with substantial language skills frequently improvise songs to create a musical narrative (like a recitative) to dynamically set the child's play to music (Epstein, 2018; Thompson, 2018). Furthermore, familiar pre-composed songs with themes that matched the play ideas of the child were either performed by the music therapist faithful to the original version or playfully adapted to suit the specific actions of the child by making lyric substitutions or musical variations (Epstein, 2018).

Final reflections

Music therapists can offer a distinct therapeutic experience to children on the autism spectrum who are highly verbal by musically matching and reflecting the child's non-

musical play. Through musical experiences that may be structured or freely improvised, the music therapist attunes to the child and creates possibilities for mutual engagement in playful stories, narratives and actions/drama. From a theoretical perspective, priority is consequently placed on fostering intersubjectivity, where the music therapist strives to meet the child emotionally, recognise and see the child's unique ways of being, and share attention (Carpente, 2017; Trondalen, 2016). Whether or not the child joins in with the music making, the therapist should be active in the play and offer invitations to change when games become static or repetitive. The therapist can improvise, exaggerate, increase flow, and move to bring a sense of vitality into the interaction through music. A more passive therapist runs the risk of reinforcing the child's repetitive style of play, which ultimately may limit growth and development (Alvarez, 1992). However, sensitivity is needed within these interactions since the primary sensory needs of the child may need to be supported in the first instance. Through working with extremes or opposites in musical-play, such as start/stop playing, loud/quiet dynamics, fast/slow tempi, high/low registers, accelerando/ritardando, melodic/rhythmic elements, as well as exaggerations such as fermata, syncopations and accents, the therapist invites the child into a playful interaction that is endlessly evolving and shifting (Epstein, 2018). These interactive musical-play experiences may result in expanding the child's social and relational repertoire while also honouring their differences.

Disclosure statement

No potential conflict of interest was reported by the authors.

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